Volume 147 January-June 1975

NATIONAL GEOGRAPHIC

INDEX

January-June 1975

VOLUME 147

PUBLISHED BY THE
NATIONAL GEOGRAPHIC SOCIETY
WASHINGTON, D. C.

NATIONAL GEOGRAPHIC SOCIETY

WASHINGTON, D. C.

Organized "for the increase and diffusion of geographic knowledge"

GILBERT HOVEY GROSVENOR
Editor, 1899-1954; President, 1920-1954
Chairman of the Board, 1954-1966

THE NATIONAL GEOGRAPHIC SOCIETY is chartered in Washington, D. C., in accordance with the laws of the United States, as a nonprofit scientific and educational organization for increasing and diffusing geographic knowledge and promoting research and exploration. Since 1890 the Society has supported 1,126 explorations and research projects, adding immeasurably to man's knowledge of earth, sea, and sky. It diffuses this knowledge through its monthly journal, NATIONAL GEOGRAPHIC; more than 50 million maps distributed each year; its books, globes, atlases, and filmstrips; 30 School Bulletins a year in color; information services to press, radio, and television; technical reports; exhibits from around the world in Explorers Hall; and a nationwide series of programs on television.

Articles and photographs of travel, natural history, and expeditions to far places are desired. For material used, generous remuneration is made.

MELVIN M. PAYNE, President
ROBERT E. DOYLE, Vice President and Secretary
GILBERT M. GROSVENOR, Vice President
THOMAS M. BEERS, Vice President and Associate Secretary
HILLEARY F. HOSKINSON, Treasurer
OWEN R. ANDERSON, WILLIAM T. BELL,
LEONARD J. GRANT, W. EDWARD ROSCHER,
C. VERNON SANDERS, Associate Secretaries

BOARD OF TRUSTEES

MELVILLE BELL GROSVENOR
Chairman of the Board and Editor-in-Chief

THOMAS W. McKNEW, Advisory Chairman of the Board

FRANK BORMAN, Executive Vice President, Eastern Airlines
WARREN EARL BURGER, Chief Justice of the United States
ROBERT E. DOYLE, Vice President and Secretary, National Geographic Society
LLOYD H. ELLIOTT, President, George Washington University
CRAWFORD H. GREENEWALT, Director, E. I. du Pont de Nemours & Company
GILBERT M. GROSVENOR, Editor, National Geographic
ARTHUR B. HANSON, General Counsel, National Geographic Society
CARYL P. HASKINS, Former President, Carnegie Institution of Washington
CARLISLE H. HUMELSINE, President, The Colonial Williamsburg Foundation
MRS. LYNDON B. JOHNSON
CURTIS E. LeMAY, Former Chief of Staff, U. S. Air Force
WM. McCHESNEY MARTIN, JR., Former Chairman, Board of Governors, Federal Reserve System
MELVIN M. PAYNE, President, National Geographic Society
LAURANCE S. ROCKEFELLER, President, Rockefeller Brothers Fund
ROBERT C. SEAMANS, JR., Administrator, Energy Research and Development Administration
JUAN T. TRIPPE, Honorary Chairman of the Board, Pan American World Airways
FREDERICK G. VOSBURGH, Former Editor, National Geographic
JAMES H. WAKELIN, JR., Former Assistant Secretary of Commerce for Science and Technology
JAMES E. WEBB, Former Administrator, National Aeronautics and Space Administration
ALEXANDER WETMORE, Research Associate, Smithsonian Institution
CONRAD L. WIRTH, Former Director, National Park Service

Trustees Emeritus
H. RANDOLPH MADDOX
BENJAMIN M. McKELWAY
LLOYD B. WILSON
LOUIS B. WRIGHT

COMMITTEE FOR RESEARCH AND EXPLORATION

MELVIN M. PAYNE, Chairman
EDWIN W. SNIDER, Secretary
ALEXANDER WETMORE, Chairman Emeritus

BARRY C. BISHOP, GILBERT M. GROSVENOR, MELVILLE BELL GROSVENOR, CARYL P. HASKINS, STERLING B. HENDRICKS, Scientist Emeritus, U. S. Department of Agriculture, THOMAS W. McKNEW, ROBERT C. SEAMANS, JR., T. DALE STEWART, Physical Anthropologist Emeritus, Smithsonian Institution, FREDERICK G. VOSBURGH, JAMES H. WAKELIN, JR., GEORGE E. WATSON, Curator of Birds, Smithsonian Institution, FRANK C. WHITMORE, JR., Research Geologist, U. S. Geological Survey, CONRAD L. WIRTH, LOUIS B. WRIGHT, and PAUL A. ZAHL, Former Senior Scientist, National Geographic Staff

Assistant Secretaries of the Society: FRANK S. DELK, JOSEPH B. HOGAN, ADRIAN L. LOFTIN, JR., LEWIS P. LOWE, RAYMOND T. McELLIGOTT, JR., EDWIN W. SNIDER. Assistant Treasurer: WARD S. PHELPS
Leonard J. Grant, Editorial Assistant to the President; Edwin W. Snider, Richard E. Pearson, Administrative Assistants to the President

Secretary's Staff: Administrative: Earl Corliss, Jr., Harriet Carey, Frederick C. Gale. *Accounting:* Jay H. Givans, Alfred J. Hayre, William G. McGhee, Martha Allen Baggett. *Membership Promotion and Statistics:* Charles T. Kneeland (Chief), Thomas M. Kent. *Educational Services:* Jerome F. Owecke. *Payroll and Retirement:* Howard R. Hudson (Supervisor); Mary L. Whitmore, Dorothy L. Dameron (Assistants). *Procurement:* J. P. M. Johnston, Thomas L. Fletcher, Robert G. Corey, Sheila H. Immel. *Member Relations:* Paul B. Tylor. *Publications:* Geneva S. Robinson. *Data Assembly:* Peter F. Woods. *Promotion:* Robert J. Warfel, Towne Windom, F. William Rath, Peter P. Jones. *Printing:* Joe M. Barlett, Frank S. Oliverio. *Production Control:* James P. Kelly. *Personnel:* James B. Mahon, Glenn G. Pepperman, Nellie E. Sinclair. *Medical:* Thomas L. Hartman, M.D. *Translation:* Zbigniew Jan Lutyk

COPYRIGHT © 1975 National Geographic Society, 17th and M Sts. N.W., Washington, D. C. 20036. All rights reserved. Reproduction of the whole or any part of the contents without written permission is prohibited. Second-class postage paid at Washington, D. C., and additional mailing offices. Cover design and title protected by U. S. and foreign trademark registrations. $10 a year, $1.25 a copy.

NATIONAL GEOGRAPHIC MAGAZINE

MELVILLE BELL GROSVENOR *Editor-in-Chief and Board Chairman*
MELVIN M. PAYNE *President of the Society*
GILBERT M. GROSVENOR *Editor*
JOHN SCOFIELD *Associate Editor*

Senior Assistant Editors
Robert L. Breeden, James Cerruti, W. E. Garrett, Kenneth MacLeish
Jules B. Billard, Allan C. Fisher, Jr., Carolyn Bennett Patterson

Assistant Editors: Andrew H. Brown, William Graves, Robert P. Jordan, Joseph Judge, Edward J. Linehan, Samuel W. Matthews, Bart McDowell, Merle Severy, Howell Walker, Kenneth F. Weaver

Senior Editorial Staff: Thomas Y. Canby, William S. Ellis, Rowe Findley, Bryan Hodgson, Elizabeth A. Moize, John J. Putman, Gordon Young

Foreign Editorial Staff: Luis Marden (Chief); Thomas J. Abercrombie, David S. Boyer, Howard La Fay, Volkmar Wentzel, Peter T. White

Editorial Staff: Harvey Arden, Kent Britt, Mike W. Edwards, Noel Grove, Alice J. Hall, Werner Janney, Michael E. Long, John L. McIntosh, Ethel A. Starbird, George E. Stuart (Archeology)

Art Director: Howard E. Paine; Charles C. Uhl (Asst.), Robert E. Pullman

Research: Margaret G. Bledsoe (Chief); Ann K. Wendt (Associate Chief); Newton V. Blakeslee (Assistant Chief for Geographic Information); Carolyn H. Anderson, Susan L. Anderson, Judith Brown, Marcia M. Butler, Susan Day Fuller, Bette Joan Goss, Ann B. Henry, Jan Holderness, Lesley B. Lane, Levenia Loder, Jean B. McConville, Carol M. McNamara, Frances H. Parker, Frances W. Shaffer, Michaeline A. Sweeney. *Correspondence:* Carolyn F. Clewell, Clifford R. DuBois

Library: Virginia Carter Hills (Librarian); Patricia Murphy Smith (Assistant Librarian), Louise A. Robinson

Editorial Administration: Joyce W. McKean, Assistant to the Editor; Virginia H. Finnegan, Lucille L. McInerney, Winifred M. Myers, Shirley Neff, M. Jean Vile (Assistants); Jolene M. Blozis (Indexes); Evelyn Fox, Dolores Kennedy (Travel); Jeanne S. Duiker, Lorie Wendling, Mary Anne McMillen (Records)

ILLUSTRATIONS STAFF: ***Illustrations Editor:*** Herbert S. Wilburn, Jr. *Associate Illustrations Editor:* Thomas R. Smith. *Art Editor:* Andrew Poggenpohl. *Assistant Illustrations Editors:* David L. Arnold, O. Louis Mazzatenta, Charlene Murphy, Robert S. Patton, Elie S. Rogers, W. Allan Royce, Jon Schneeberger, Mary Griswold Smith. *Layout and Production:* H. Edward Kim (Chief). *Picture Editors:* Bruce A. McElfresh, Paula C. Simmons, Barbara A. Shattuck (Assistant). *Librarian:* L. Fern Dame. *Assistant Librarian:* Carolyn J. Harrison

Geographic Art: William N. Palmstrom (Chief); Walter Q. Crowe, John D. Garst, Jr. (Assistant Chiefs). *Artists:* Lisa Biganzoli, William H. Bond, John W. Lothers, Robert C. Magis, Ned M. Seidler, Lloyd K. Townsend. *Cartographic Artists:* Victor J. Kelley, Snejinka Stefanoff. *Map Editor:* John T. Blozis. *Research:* Virginia L. Baza, Dorothy A. Nicholson, Ann Ruhnka. *Production:* Isaac Ortiz (Supervisor); Iskandar Baday, Elie Sabban, Leo B. Zebarth

Engraving and Printing: Dee J. Andella (Chief); William W. Smith (Assistant Chief); John T. Dunn, John R. Metcalfe, James R. Whitney

PHOTOGRAPHIC STAFF: ***Director of Photography:*** Robert E. Gilka. *Assistant Directors:* Dean Conger, Joseph J. Scherschel. *Photographers:* James L. Amos, James P. Blair, Victor R. Boswell, Jr., Bruce Dale, Dick Durrance II, Gordon W. Gahan, Otis Imboden, Emory Kristof, Bates Littlehales, Robert W. Madden, George F. Mobley, Robert S. Oakes, Winfield Parks, Robert F. Sisson (Natural Science), James L. Stanfield. Lilian Davidson (Administration). *Film Review:* Guy W. Starling (Chief). *Photographic Equipment:* John E. Fletcher (Chief), Donald McBain

Photographic Services: Carl M. Shrader (Chief); Milton A. Ford (Associate Chief); Jon R. Adams, Herbert Altemus, Jr., David H. Chisman, Lawrence F. Ludwig (Assistant Chief, Phototypography), Claude E. Petrone, J. Frank Pyles, Jr.; Joan S. Simms (Assistant)

RELATED EDUCATIONAL SERVICES OF THE SOCIETY

Cartography: William T. Peele (Chief); David W. Cook (Associate Chief). *Cartographic Staff:* Margery K. Barkdull, Charles F. Case, Ted Dachtera, Richard J. Darley, John F. Dorr, Russel G. Fritz, Richard R. Furno, Charles W. Gotthardt, Jr., Thomas L. Gray, Catherine M. Hart, Donald A. Jaeger, Harry D. Kauhane, Manuela G. Kogutowicz, Mary Anne McAleer, Charles L. Miller, Robert W. Northrop, Richard K. Rogers, John F. Shupe, Charles L. Stern, Douglas A. Strobel, Tibor G. Toth, Thomas A. Wall, Thomas A. Walsh, Charles M. Wilson III

Books: Jules B. Billard (Chief); Thomas B. Allen, Seymour L. Fishbein (Associate Chiefs); Ross Bennett, Charles O. Hyman, Anne Dirkes Kobor, David F. Robinson, Wilhelm R. Saake, Verla Lee Smith

Special Publications and Educational Filmstrips: Robert L. Breeden (Chief); Donald J. Crump (Associate Chief); Philip B. Silcott (Assistant Chief); William L. Allen, Josephine B. Bolt, David R. Bridge, Linda Bridge, James B. Caffrey, Margery G. Dunn, Ronald Fisher, William R. Gray, Sallie M. Greenwood, Mary Ann Harrell, Margaret McKelway Johnson, Geraldine Linder, Robert Messer, H. Robert Morrison, George Peterson, Cynthia Ramsay, Tee Loftin Snell, Joseph A. Taney, George V. White, Merrill Windsor

Recording Division: John M. Lavery (Chief)

School Service: Ralph Gray (Chief and Editor of National Geographic School Bulletin); Charles H. Sloan (Assistant Chief); Joseph B. Goodwin, Ellen Joan Hurst, Anne H. Oman, Patricia F. Robbins, Veronica Smith, Janis K. Wheat

News Service: Windsor P. Booth (Chief); Paul Sampson (Assistant Chief); Donald J. Frederick, William J. O'Neill, Robert C. Radcliffe

Television and Educational Films: Dennis B. Kane (Chief); Sidney Platt (Supervisor, Educational Projects); David Cooper, Carl W. Harmon, Jr., Patricia F. Northrop; Marjorie M. Moomey (Chief of Research)

Lectures: Joanne M. Hess (Chief); Robert G. Fleegal, Mary W. McKinney, Gerald L. Wiley, Carl E. Ziebe

EUROPEAN OFFICE: W. Edward Roscher (Associate Secretary and Director), Jennifer Moseley (Assistant), 4 Curzon Place, Mayfair, London, W1Y 8EN

ADVERTISING: *Director:* James L. Till. *Manager of Agency Relations:* William Turgeon, 1251 Avenue of the Americas, New York, N.Y. 10020. *Regional managers—Eastern:* George W. Kellner, New York. *Midwestern:* Robert R. Henn, Chicago. *San Francisco:* Cecil H. London. *Los Angeles:* Jack Wallace. *Canada:* Robert W. Horan, New York. *Automotive:* John F. Grant, New York. *Travel:* Gerald A. Van Splinter, New York. *European Director:* Richard V. Macy, 21 rue Jean-Mermoz, Paris 8e, France. *Production:* E. M. Pusey, Jr.

Contents

Page

JANUARY 1975

EDITOR'S PAGE 1

IRAN: DESERT MIRACLE 2
By William Graves, with photographs by James P. Blair

HOW WE FOUND THE *MONITOR* 48
By John G. Newton

A BOLD NEW LOOK AT OUR PAST 62
—The Editor

EXPLORING THE MIND OF ICE AGE MAN 64
By Alexander Marshack

NEW ENGLAND'S "LITTLE PORTUGAL" 90
Article and photographs by O. Louis Mazzatenta

BAD DAYS FOR THE BROWN PELICAN 111
By Ralph W. Schreiber, with photographs by William R. Curtsinger and the author

MARTINIQUE: LIBERTÉ, EGALITÉ, AND UNCERTAINTY IN THE CARIBBEAN 124
By Kenneth MacLeish, with photographs by John Launois (Black Star)

FEBRUARY 1975

EDITOR'S PAGE 149

WESTERN AUSTRALIA, THE BIG COUNTRY 150
By Kenneth MacLeish, with photographs by James L. Stanfield

BALTIMORE: THE HIDDEN CITY 188
By Fred Kline, with photographs by Martin Rogers

SIR FRANCIS DRAKE 216
By Alan Villiers, with photographs by Gordon W. Gahan

BRAZIL'S KREEN-AKARORES: REQUIEM FOR A TRIBE? 254
Article and photographs by W. Jesco von Puttkamer

BRAZIL'S TXUKAHAMEIS: GOOD-BYE TO THE STONE AGE 270
Photographs by W. Jesco von Puttkamer

MYSTERY SHROUDS THE BIGGEST PLANET 285
By Kenneth F. Weaver

MARCH 1975

EDITOR'S PAGE 295

WHICH WAY NOW FOR ARGENTINA? 296
Article and photographs by Loren McIntyre

NOVA SCOTIA, THE MAGNIFICENT ANCHORAGE 334
By Charles McCarry, with photographs by Gordon W. Gahan
Map supplement included—*Close-up: U.S.A., Maine, with the Maritime Provinces of Canada*

THE KURDS OF IRAQ: "WE WHO FACE DEATH" 364
Article and photographs by LeRoy Woodson, Jr.

HIDDEN WORLDS IN THE HEART OF A PLANT 389
Article and photographs by Paul A. Zahl

HAWAII, ISLAND OF FIRE AND FLOWERS 399
By Gordon Young, with photographs by Robert W. Madden

SIX MONTHS ALONE IN A CAVE 426
Article and photographs by Michel Siffre

YOUR NATIONAL GEOGRAPHIC GUIDE...*THE NEW AMERICA'S WONDERLANDS* 436
New National Geographic Book

Page

APRIL 1975

EDITOR'S PAGE 439
UTAH'S SHINING OASIS 440
By Charles McCarry, with photographs by James L. Amos
THE FAMILY: A MORMON SHRINE 459
TANZANIA MARCHES TO ITS OWN DRUM 474
By Peter T. White, with photographs by Emory Kristof
THE LOYALISTS: AMERICANS WITH A DIFFERENCE 510
By Kent Britt, with photographs by Ted Spiegel (Black Star)
THE CHANGING WORLD OF CANADA'S CREES 541
Article and photographs by Fred Ward (Black Star)
INTO THE LAIRS OF "SLEEPING" SHARKS 570
By Eugenie Clark, with photographs by David Doubilet

MAY 1975

EDITOR'S PAGE 585
PROJECT FAMOUS—MAN'S FIRST VOYAGES DOWN TO THE MID-ATLANTIC RIDGE WHERE THE EARTH TURNS INSIDE OUT 586
By J. R. Heirtzler, with photographs by Emory Kristof
DIVE INTO THE GREAT RIFT 604
By Robert D. Ballard, with photographs by Emory Kristof
MY BACKYARD, THE ADIRONDACKS 616
By Anne LaBastille, with photographs by David Alan Harvey
RHODESIA, A HOUSE DIVIDED 641
By Allan C. Fisher, Jr., with photographs by Thomas Nebbia
LIFE WITH THE "PUMPHOUSE GANG" 672
By Shirley C. Strum, with photographs by Timothy W. Ransom
New insights into baboon behavior
PROVENCE, EMPIRE OF THE SUN 692
By William Davenport, with photographs by James A. Sugar
MYSTERY OF THE ANCIENT NAZCA LINES 716
Picture story by Loren McIntyre

JUNE 1975

EDITOR'S PAGE 729
ALASKA: RISING NORTHERN STAR 730
By Joseph Judge, with photographs by Bruce Dale
Map supplement included—*Close-up: U.S.A., Alaska*
PRESERVING AMERICA'S LAST GREAT WILDERNESS 769
Text by David Jeffery
NEW LIFE FOR THE TROUBLED SUEZ CANAL 792
By William Graves, with photographs by Jonathan Blair
STRANGE MARCH OF THE SPINY LOBSTER 819
By William F. Herrnkind, with photographs by Rick Frehsee and Bruce Mounier
ANDALUSIA, THE SPIRIT OF SPAIN 833
By Howard La Fay, with photographs by Joseph J. Scherschel
MARINER UNVEILS VENUS AND MERCURY 858
By Kenneth F. Weaver
FOUR NEW BOOKS: HANDCRAFTS, INCA EMPIRE, THE UNIVERSE, THE ROCKIES 870
1975-76 series: *The Craftsman in America; The Incredible Incas and Their Timeless Land; The Amazing Universe; The Majestic Rocky Mountains*

Index VOLUME 147 JANUARY-JUNE 1975

January	pp.	1-148	April	pp.	439-584
February	pp.	149-294	May	pp.	585-728
March	pp.	295-438	June	pp.	729-874

Titles and illustrations in bold face

A

A (letter): Origin 73
Abaco (island), Bahamas **534-535;** American Loyalist settlers 534-535; Attempts to become Crown Colony 535
Abadan, Iran: Oil refinery 29, 30, catalytic cracker **2-3**
Abbas I, Shah (Persia) 21
Abdulla, Ali 384
Abolitionists: London (1792) 536, 538
Aborigines: Australia **165, 166,** 167-168
Abravanel, Maurice 448, 466, 467
Abstract art **301**
Abu Abdullah, King (Granada) 843
Abu Bakr ibn Zuhr 849
Abu Masa (island), Iran 35
Acadian French (dialect) 345, 351
Acadians: Nova Scotia 352, 357
Aconcagua (peak), Argentina 329, **330-331;** Winds 329, 331
Acushnet, Mass.: Restaurant **96-97,** 101, 103
Acushnet (19th-century whaler) 103
Adams, Ivan 470
Adams, Jake 735
Adams, Samuel 520
Adams, Thomas B. 517
Adirondack Mountains, N.Y. *see* Adirondack Park
Adirondack Park, N.Y.: ***My Backyard, the Adirondacks.*** By Anne LaBastille. May, pp. 616-639
Area 617, 618
Autumn 617, 622, 623, **624-625,** 633, 635, 639
Economy 622, 628, 633, 634, 638, 639
Fishing, sport 617, **620-621,** 629, 634
Guides 616, 620, 623, 629
High Peaks region **616-617,** 623, 625, 629, 635
Hiking 626, 634-635; Supplies **631**
Hunting 620, 622-623, 633, 634
Land-use plan 618, 634, 638, 639
Map 618-619
"natives": Attitudes and beliefs 617-618, 620, 622, 628, 629, 634, 638-639; Number 617, 618; Winter life 623, 628-629, 631, 633
Snowmobiles, impact of 623, 628, 631, 633
Spring and summer 629, 633, 634, 637
Trappers 628, 631, **633**
Visitors 620, 622, 623, 625, **626-627,** 628, 629, 633, 634, 635, **636;** Spoiling by 627, 634, 635, 639
Weather 623, 624, 626, 629; Winter 617, 623, 628, **630-633,** 635
Wilderness preservation 618, 622, 627, 633, 634, 637, 638-639
Wildlife 620, 622-623, **623,** 628, 629, **632, 633,** 634, 639
Adirondack Park Agency 618, 634, 638, 639; Chairman 622
Aerial Experiment Association 361
Africa *see* Egypt; Freetown, Sierra Leone; Rhodesia; Tanzania; *and* Baboon, olive
African continental plate, drift of 588, 596, 603
African National Council 648, 656, 668, 670; Head of **657,** 668, 670
Afro-Shirazi Party (ASP): Zanzibar 487, 498, 500
Agriculture *see* Argentina (Crops); Hawaii (Farming); Iran (Farming); Martinique; Nova Scotia; Rhodesia; Tanzania; Western Australia; Zanzibar; *and* Ranches
Ahmaogak, Fred 744
Ahtena Indians: Alaska 758
Ahvaz, Iran: Oil fields **30-31**
Air attacks, Iraqi: Kurdistan 369, 371, 376, 377, 378, 379, 381, 382, 386
Ajudani, Parviz 30-31, 35
Akaka Falls State Park, Hawaii (island) 405; Falls **423**
Aker, Raymond 216
Alam, Amir Assadollah **11**
Al Amadiyah, Iraq 378
Alamito people: Argentina 301, sculpture **301**
Alaska:
Alaska: Rising Northern Star. By Joseph Judge. June, pp. 730-767
Beauty and Beasts in a Last Frontier. June supplement (730A)
Preserving America's Last Great Wilderness. Text by David Jeffery. June, pp. 769-791
Conservationists 731, 734, 735, 740, 744, 745, 748, 759, 772
Governors 759
Land division: Federal Government 745; Freeze 734, 735, 738; Homesteads 759, 763; Map 738-740; Public domain 734, 738, 744, 759, 763; State selections 734, 735, 740; *see also* Natives: Land-claims settlement; Protected lands, *below*
Maps 730A; Land use 738-740
Mineral resources 731, 744, 758 *see also* Oil, *below*
Natives: Corporations 731, 735, 736, 740, 750, 763, 765-766; Hunting, trapping, and fishing 732, 734, 735-736, 744, 748, 749, 757, 763, 765, 766, 769, **774-775,** 779, 784; Land-claims settlement 731, 734, 735, 738, 740, 744, 750, 763, 766, 772; Racial consciousness 735, 755, 766; Social problems 731, 735, 758, 763, 764, 765; Younger generation 734, 735, 737, **745, 751, 754-755,** 765, 766, **767**
Oil: Companies 734, 735, 736, 740, employees **746-747,** 758; Discovery 734, 738; Exploration 735, 750; Fields 734, 736, 749, 759; Leases 734, 735, 736; Production rate 734, 743; Revenues 734, 759, taxes 736-737; Spill threat 738, 743; *see also* Trans-Alaska pipeline
Plant life **730A,** 766, **773**
Population 744; Native 763
Protected lands, proposals for 731, 740, 744-745, 749, 752, 769, 771, 772, 775, 777, 779, 780, 783, 784, 787, 788, 790
Temperatures 731, 732, 735, 737, 745, 762, 763
Transportation 730A, **730A,** 737, 743, 744, 748, 757, 761, 766, 769, 779, 781, 788
Wildlife **730A,** 744, 752, 762, **768-769,** 771, 772, **774,** 779, 781, **784-785, 790**
Alaska Federation of Natives 734
Alaska Native Claims Settlement Act of 1971 729 *see also* Alaska: Natives: Land-claims settlement
Alaska Peninsula, Alaska: Volcanic lands **780-783**
Albany, Western Australia 183, 185
Albury, Maurice 535, **535,** 538
Alcoa Seaprobe (research vessel)

50, 56, 61; Underwater photos, importance of 50-51, 61
Aleuts: Alaska 731, 763, 769, 772
Alexander, King (Macedonia) 5, 13, 35
Alexander Archipelago, Alaska 766
Alexander Graham Bell Museum, Baddeck, Nova Scotia 358, **358-359,** 361
Al Hajj Umran, Iraq 369, 384, 386
Alhambra (fortress-palace), Granada, Spain **834-835,** 842-843
Alsuri, Marisa **321**
Alta, Utah: Skiing **455,** 456
Alves, Catarina 90, 92-93, **93;** Family 92-93, **93**
Alves, William 668, 670
Alvin (submersible) **586-587,** 589, 591, 593, 594, 597, 602, 603; ***Dive Into the Great Rift*** (Mid-Atlantic Rift). By Robert D. Ballard. May, pp. 604-615
Ballast system 604, 606, 608, **609,** 615
Cameras 612; Diagram **609**
Communications 604, 605, 612
Cutaway painting **609**
Depth, operating 606, 609, 612
Dives, number of 604, 610, 615
Emergency provisions 605, **609**
Hull 604, 609, 612
Interior 605, **606-607, 609**
Life-support system 605
Navigation system 605-606; Diagram **610**
Power supply 605, **609,** 615
Propellers 608, **609,** 610, 613
Size 604, 605, 606
Amazon Basin Indians *see* Kreen-Akarores; Txukahameis
American continental plate, drift of 588, 596, 603
American Revolution: ***The Loyalists: Americans With a Difference.*** By Kent Britt. Apr., pp. 510-539
Battles 524, **525-526,** 531, 533; Reenactments **530-531,** 532-533
Bicentennial observances **511, 515,530-531,**532-533;Planned 538
Civil war in Carolinas 524, **525-526,** 533
Historic sites **511,** 524, 533-534, **539**
Indians 531, 532
Prison 533-534, **539**
Relative strength of armed forces 533
Slaves 534, 535, 536, 538
see also Loyalists, *outlined*
Amino acids 291
Amir Kabir Dam, Iran 20
Ammonium hydrosulfide 287
Amos, James L. 439; photographer: ***Utah's Shining Oasis.*** Apr., pp. 440-473
Amouzegar, Jamshid **11**
Amphibians: Frogs **388;** Salamanders **395**
Ancestor worship: Rhodesia 641, 645, 658, 662
Anchorage, Alaska 734, 735, 759, **760-761,** 763
Andalusia (region), ***the Spirit of Spain.*** By Howard La Fay. June, pp. 833-857
Agriculture 847; Grapes **854-855;** Olive harvest 854
Architecture **832, 834-835, 840-841,** 843, 849
Area 833
Artists 839, 849, 850, 851
Bullfighting 833, 850-853, **852-853**
Cities, major *see* Córdoba; Granada; Seville
Dance 850, **851,** 856
Diet 833, 841, 847
Emigration of laborers 847, 848
Geography 833, 838, 847
Gypsies 833, 842, 845, 846
History 833, 835, 838, 839, 842-843, 847, 848, 849
Holy Week 845-846; *nazarenos* **846**
Map 838
Moorish influence 833, 838, 847, 849, 850
Music 833, 839, 842, 845, 846, 851
Place names, Arabic 838, 839, 847
Tourists 837, 843-844
Andel, Tjeerd H. van **597**
Andes (mountains), South America: Argentina 296, **318-320,** 329, **330-331;** Peru **872**
Andrews, Tony 100
Andrus, Niles 456
Aniakchak Caldera National Monument (proposed), Alaska 744, **780-781**
Animals: Animal studies *see* Baboon, olive, Brown pelican, Requiem sharks, Spiny lobster; Endangered species *see* Brown pelican; In ancient art *see* Ice Age, Nazca Lines; *see also* Amphibians; Birds; Fishes; Reptiles; Wildlife; *and* names of individual mammals
Annapolis-Cornwallis Valley, Nova Scotia **354**
Anne, Queen (Great Britain): Mohawks, gift to 532, **532**
Ansary, Hushang 6, **11**
Antarctica: Argentine claim 322, 325; Tourists 322
Anthropology: Near-man skull **488;** *see also* Cro-Magnon man
Antibes, France: Picasso work 714
Antilles, Lesser *see* Martinique
Anton, San Juan de 238, 240
Anushirvan, Haji 41, 43
Apple orchard: Nova Scotia **355**
Aqueducts: Roman: Gard River, France 692, **699;** Underground *(qanats):* Iran 40-41, 43, access shafts 41, **42, 43**
Aquiculture: Nova Scotia 362
Arab Empire: Spain 835, 838, 839, 842-843, 847, 849
Arab nations: Oil production 1 *see also* Egypt
"Arabs" (Baltimorean hucksters) 199; Trappings **198**
Arabs: Africa, rule in 479, 487, 498, 505
Archeology: ***A Bold New Look at Our Past.*** By the Editor. Jan., pp. 62-63; ***Exploring the Mind of Ice Age Man.*** By Alexander Marshack. Jan., pp. 64-89
Archeology, underwater: ***How We Found the*** **Monitor.** By John G. Newton. Jan., pp. 48-61
Archier, Fernand 695, 698; Wife 698
Archimède (French bathyscaphe): Project FAMOUS 590, 597, **600, 601,** 602, 605, 608, **609,** 613, weight 597
Architecture: Gothic: Largest church 848-849; Moorish **832, 834-835,** 839, **840-841,** 841, 842-843, 849
Arctic Regions *see* Alaska
Arctic Slope Regional Corporation: Alaska 735, 750
Ardalan, Nader **14**
Argentina 295; Drake's landing 232; Gauchos **232;** ***Which Way Now for Argentina?*** By Loren McIntyre. Mar., pp. 296-333
Art; artists **301**
Beach **312-313**
Capital *see* Buenos Aires
Carnival 307, **308,** 309
Children, spoiling of 323, 327
Climate 302, 329
Compared to the United States 296, 297, 303, 309, 314, 315, 317, 327
Crops 306, 309, 320, **320-321,** 327, **328;** Irrigation 327
Economy 302, 306, 307, 309, 311, 312, 314, 323; Exports 309, 315, 325, 329; Foreign firms 314, 327, 333; Inflation 329
Facts and figures 302
Flag **302**
Government 296, 309, 312, 315, 329, 333; Presidents 296, **333** *see also* Perón, Juan Domingo
Highways 309, 317, 327
History 296, 297, 301, 302, 309, 311, 312, 314, 327
Indians 297, 301, 314, 321-322; Present-day 322, 327
Kidnappings 314, 315, 323, 333
Literature 301, 303; Author **300**
Livestock 302, **310-311,** 314, 315, **316,** 317, 320, 321, 322, 325, **326**
Map 302
National parks 317, **318-319,** 320
Political violence 296, 321, 327, 329, 333
Population 297, 302, 314; Ethnic origins 297, 302, 311, 314, 315, 320, 321, 322, 327

Provinces 297, 309
Scientists 303, 306, 317, 319, 320; Nobel Prize winner **318**
Size 296, 302, 317
Territorial claims in Antarctica 302, 322, 325
Arles, France 698, 713; History 707
Armadillo **275**
Arndt, "Bun" 628, **633**
Arriate, Spain: Bell ringers 833
Arrigetch Peaks, Alaska **770-771**
Art *see* Paintings; Sculpture
Artaud, Leo 715
Artificial-organs research: University of Utah 467
Artillery; firearms: Antiaircraft gun **813;** Machine gun **642,** ammunition **642, 655;** Muskets: American Revolution reenactment **530-531,** 532; Revolvers **374;** Rifles, Soviet-made **374, 792-793;** Txukahameis' firearms 264, **275, 280-281**
Aryans: Iran 6, 13, 20
Arzillier, Claude 701
Asia *see* Iran; Kurdistan
Asteroid belt 294; Diagram **286**
Astronomy *see* Planets
Athapaskan Indians: Alaska **730-731,** 732-733, 738, 762
Atkinson, Josie Sam 545
Atlantic Ocean floor: Rift system 585 *see also* Mid-Atlantic Rift
Atwill, Lionel 638
Atwood, Robert 759
Aups, France 693; Inn 695, 698, **700**
Aurora borealis: Alaska **732-733,** 762, June supplement
Ausable River, N.Y.: Fishing **620-621**
Australia *see* Western Australia
Australian Land and Cattle Company: Camballin, Western Australia 163, 168
Australopithecus boisei skull **488**
Austrian, Florence Hochschild 197
Avignon, France 692; Fortress-palace **700-701;** History 707
Avila, Daniel 584
Avila, George 103
Axes, stone **264**
Azerbaijan, Iran 43, 46
Azoreans: United States residents **92,** 93, 95, **95,** 98, **104**

B

BP/Sohio operations center, Prudhoe Bay, Alaska **746-747**
Baboon, olive *(Papio anubis)*: ***Life With the "Pumphouse Gang": New Insights Into Baboon Behavior.*** By Shirley C. Strum. May, pp. 672-691
Communication; signals 674, 681, 682, **685,** 686, 691
Family groups 673, 675, 680
Feeding **674-675,** 686, **687;** Competitors in food supply 678; Diet 678, 684-685, 686
Females 673, 675, 679, 680, 685, 686; Estrus 680, 682
Friendships among: Between female and female **672-673,** 675, 680; Between female and male 675, 680, 682, 684, 691
Grooming 673-674, 679, 680, 691
Hunting tactics 685-686
Immigrants, troop (males) 675, 679, 682; Newcomer, behavior of 679-680; Troop acceptance, key to 680
Life span 680
Males: Aggressiveness and threat displays **676-677,** 681, 682, **685,** 686, 691; Dominance: Role shifting 682; Former views on 673, 679; *see also* Hunting tactics; Immigrants, *above*
Play 673, **684-685, 691**
Population of Pumphouse Gang (troop) 675, 678, 691; Factors changing 679, 682
Predatory 684-686, **686, 687**
Sexual behavior 680, 682, 691
Sexual maturity 680
Sleeping cliffs 673, **675,** 691
Social structure 673, 675, 678, 679, 680, 682, 684, 691
Study of: Conclusions 680, 691, contrary to established theories 673, 680; Methods 673, 675, 678, 679, 681; Noninvolvement of researcher with baboons 674, 681, 686, 689, 691; Objectives 674, 691; Study area (map) 681
Troop stability, key to 673, 675, 680
Young 673-674, 680; Infants **672, 678, 679,** 680, 685, 686, **688-691,** cover ill.; Juveniles 680, **684-685,** 685, 686, 691, cover ill.
Backpacking: Adirondacks **627,** 634-635, shelters 634, 635; Canyonlands National Park, Utah **438;** Harding Icefield, Alaska **786-787**
Backpacking store, Keene, N.Y. **631**
Bacteria: Bromeliad ecosystem 389, 391
Bad Days for the Brown Pelican. By Ralph W. Schreiber. Jan., pp. 111-123
Baddeck, Nova Scotia 357, 362; Alexander Graham Bell Museum 358, **358-359,** 361
Baddeck Bay, Nova Scotia: Bell experiments 358, 361
Bahama Islands: Independence (1973) 535; Loyalist settlement *see* Abaco
Baharestan, Ahmad 25, 26
Bahdinan region, Iraq 378-379
Bahmanbegui, Mohammad 40
Baldwin, F. W. 359, 361
Ballard, Robert D. 597, 603, **606, 610;** ***Dive Into the Great Rift*** (Mid-Atlantic Rift). May, pp. 604-615
Ballast systems: *Alvin* (submersible) 604, 606, 608, **609,** 615; *Archimède* (bathyscaphe) 609
Baltimore, Md.: ***Baltimore: The Hidden City.*** By Fred Kline. Feb., pp. 188-215
Aerial view **190-191**
Area 197
Black community: Job opportunities **208,** 213-214
Ethnic festivals **193,** 204-205
Food and restaurants **188-189,** 190, **194-195,** 195, 199, **200-201**
History 190, 193, 197, 198, 208, 211, 214
Houses 193, 197, 198; Row houses 189, **190-191, 206-207,** 208, 212
Inner Harbor 189, 193; Reconstruction 211-212
Literati 190, 194, 199, 208
Map 197
Medical innovations 194, **210, 211**
Music and musicians 194, 197, 199, **203**
Name origin 197
Population 197; Rank in nation 208
Port 198, **214-215,** 215
Sports, team **212-213**
Urban renewal **196,** 197, 204, 208, 211-213
Baltimore, Battle of 190
Baltimore Orioles (baseball team) 198; Broom girl **213**
Baltimore Symphony Orchestra 197; Associate conductor **203**
Bam (ruins), Iran **18-19**
Bamberger, Simon 445
Bananas: Martinique 132, 134, 148, grove **138-139;** Western Australia 179
Bandar Abbas, Iran 35
Bandar-e Pahlavi, Iran 20
Bandar-e Shahpur, Iran: Chemical plant **29,** 30
Bankhead, John P. 59, 60
Bar-Lev Line (Israeli fortifications), Sinai desert **797,** 798, **813,** 815
Barbecue: Tierra del Fuego **324-325**
Barber, Jill **156**
Bargème, France: Lavender cultivation 701, 704
Bariloche Foundation: Argentina 317, **318,** 319, 320
Barrow, Alaska: Eskimos 735, 736, 748
Barrow Island, Western Australia: Oil 173
Barth, John 194
Barzani, Mulla Mustafa 295, **368,** 369, 378, 384, 386
Basketball: Alaskan students **755**
Bathyscaphe *see Archimède*
Bayley, Neville 177
Bazaars: Iran 7, **17**
Bazile, Christiane **131**

XUM

Beaches: Hawaii: Black sand 399, 407, green sand 399, 417, 420; *see also* Argentina; Provence
Beadwork: Cree Indians 549, **552**
Beagle Channel, Argentina-Chile 322, **324-325**
Bears: Black: Adirondacks 622, **623,** 633; Brown: Alaska **768-769,** 781, June supplement
Bearskin, Job 547
Beauty and Beasts in a Last Frontier (Alaska). June supplement
Beavers 561, **567, 633;** Lodges 565, **565;** Pelts **542-543,** 554, 561, 565, 568, 633; Trapping 565, **565,** 568, **569**
Belain, Pierre, Sieur d'Esnambuc 131
Bell, Alexander Graham 357-358, **358,** 359, 361-362
Bell, Mrs. Alexander Graham 357, 361
Bell ringers: Arriate, Spain 833
Belmonte, Juan 851, 852
Belton, Michael J. S. **860**
Benaoján, Spain **840-841,** 847
Benevides, Raul 93, 95
Bennington, Vt.: Museum **538**
Benson, Mr. and Mrs. Ezra Taft **473**
Bicentennial: ***The Loyalists: Americans With a Difference.*** By Kent Britt. Apr., pp. 510-539
Bickendorf, Carl 176
Bicycle race: Martinique **134**
Billings, Roger E. 468
Billings Energy Research Corporation, Provo, Utah 468
Billops Corps Loyalists: American Revolution battle reenactment **530-531**
Bimini (islands), Bahamas: Spiny lobster study *see* Spiny lobster
Biochemical Research Institute, Buenos Aires, Argentina 306
Biomedical engineering: University of Utah 467
Biorhythm research: ***Six Months Alone in a Cave.*** By Michel Siffre. Mar., pp. 426-435
Equipment 426, **427,** 428, 429, **430**
Food 428, **431**
Layout of cave 426, **429, 432-433;** Cutaway painting **429**
Psychological deterioration 428, 429, 431, 432, 433, 435
Recreation 429, **430**
Sleep research 429, 430
Sleep-wake cycles 426, 429, 435; Graph 434
Tests, daily 428, **430, 431,** 433, 435
Biot, France: *boules* game **696-697**
Birds: Alaska 722, **784, 785, 790,** June supplement; Baltimore oriole 197; Eagles: Bald **785,** fledgling **784,** wood carving **870-871;** Eider, king **790;** Hummingbird, hermit **397;** Nazca Lines **724-725;** Partridge, caged **841;** Pelicans **470-471;** Penguins 236, Magellanic penguin **235;** Puffins, tufted **790;** Waterfowl breeding grounds 470; *see also* Brown pelican
Biscayne Bay, Fla.: Spiny lobsters **826-827**
Bison, Ice Age: Cro-Magnon images **78-79,** 80, **83,** cover ill.; Steppe **72;** Woodland **73**
Black Pioneers (Loyalist corps) 538
Blackmore, Stan **177**
Blackned, Margaret **552**
Blair, James P., photographer: ***Iran: Desert Miracle.*** Jan., pp. 2-47
Blair, Jonathan, photographer: ***New Life for the Troubled Suez Canal.*** June, pp. 792-817
Blair, Paddy **166**
Blanchard rock shelter, France: Ice Age artifact 65-66, **66-67**
The "Block," Baltimore 201, 203, 204
Blueberries **557**
Bluenose (schooner) 337, 362
Boatbuilding: Abaco, Bahamas **535;** Nova Scotia 335, **336**
Boats: Adirondack guide boats **621,** 623, 629; Dinghy **535;** Dugouts *(gommiers)* 124, 126, **141;** Foldboats **636;** Kayaks **438, 708-709;** Ketch **336;** Outrigger canoes **418-419;** Pinnaces 224, 227, 238; Powerboats **636;** Schooners 335, **337,** 339, 344, 362; Trawlers **102,** 103, 105
Bodega Marine Laboratory, University of California 123
Bodfish, Homer 737, 744
A Bold New Look at Our Past. By the Editor. Jan., pp. 62-63
Bolivia: Silver 224, 228
Bond, William H.: Painting by **393**
Bone and antler engravings, prehistoric 62-63, **62-63,** 68, **69,** 70, 73, 80, **83, 88-89;** Earliest known 85
Bonne, Joseph 136
Bonneville, Lake (ancient lake), Utah 447, 456
Book of Mormon 445, 447
Books, NGS: *The Amazing Universe, The Craftsman in America, The Incredible Incas and Their Timeless Land, The Majestic Rocky Mountains* (1975-76 series) 870-874; *The New America's Wonderlands* 436-438
Bordes, François 85, 87
Borges, Jorge Luis **300,** 303
Bostock, Dee and Jeanette 167-168
Boston, Mass.: Loyalists 512, 517, 520-521
Bostwick, George, and sons **523**
Boucher, William, III 211
Bourassa, Robert 545
Bowen, Gerald R. 347
Bower, Adam 514
Bower, John O. 514
Bowling: Biot, France **696-697;** Plymouth Hoe, England 246, **247**
Braga Bridge, Fall River, Mass. **99,** 101
Brant, Joseph (Thayendanegea) 531
Bras D'Or Lake, Nova Scotia **356-357,** 357, 358, 361; Aquiculture 362; Hydrofoil test **359**
Bravo, Ramon 574, 575, 578, 584; Film by **577**
Brazil: Bromeliads 389, 393; Indians 729, ***Brazil's Beleaguered Indians*** (Kreen-Akarores; Txukahameis). By W. Jesco von Puttkamer. Feb., pp. 254-283
Breuil, Abbé Henri 74, 84
Brewer, Charles R. 420
Bridger, Jim 446
Bridges, Thomas 321, 322
Bristol, R.I.: Portuguese-Americans **106, 107,** Fourth of July celebration **90-91, 94, 95,** soccer game **101**
Britt, Kent: ***The Loyalists: Americans With a Difference.*** Apr., pp. 510-539
Broderson, George **615**
Bromeliads: ***Hidden Worlds in the Heart of a Plant.*** By Paul A. Zahl. Mar., pp. 389-397
Cross section of **393**
Flowers **390-391, 393, 396-397;** Nectar 397
Food and moisture, source of 389, 394
Habitat of 389, 394; Greenhouse plants 394
Number of species 389
Plant type 394
Roots 389, 396
Scales 394
Sizes 389, 394
Species: *Aechmea* **396-397;** *Guzmania* **395;** *Neoregelia* **389, 390-391, 394-395;** *Orthophytum* **396;** *Vriesea* **388,** *V. imperialis* **395**
Spikes **396**
Wells (rosettes) **388,** 389, **390-392, 394,** 397; Capacities 389, 394; Cross section **393;** Tapping of 389, **389,** 394, **396**
Brooks Range, Alaska 734, 744, 748-749, 758, **770-771**
Broome, Western Australia 163, 168; Pearling 168, 170
Brovès, France 707
Brower, David **750**
Brown, Glennis 167
Brown, James 468, 470
Brown, Les **151,** 167
Brown pelican: ***Bad Days for the Brown Pelican.*** By Ralph W. Schreiber. Jan., pp. 111-123
Browne, D. Rodney 49, 59
Bryan, Wilfred B. 597, **602,** 613
Buck Island Reef National Monument, Virgin Islands **437**
Buckland Abbey, Devon, England 240, **252,** 253
Buenos Aires, Argentina: Aerial view **298-299;** Founding 314;

Inaugural crowd (1973) **332-333;** Inflation 329; Political rally **332;** Population 297, 302
Bulawayo, Rhodesia 643, 645, 646, **648**
Bullfighting: Andalusia, Spain 833, 844, 850-853, **852-853**
Bureau of Indian Affairs: Alaska 765
Burkhart, Bob 629
Burlington, N.J.: Loyalists **520**
Butts, Francis 59
Byles, Mather 521

C

C. Brewer and Company, Limited: Hawaii (island) 420, 423
Cabanelas, Evaristo **311**
Cabot, John 338
Cabot Trail, Nova Scotia 340-341, 357
Cádiz, Spain: Attacked by Drake 217, 246
Caesar, Julius 693, 695, 700
Calendars *see* Lunar calendars
California: Drake's landing 216, 220-221, 231, 240, map 220; Pelican breeding decline 113, 123
Calista Corporation: Alaska 765-766
Caloyianis, Nick 584
Calvert, Charles, fifth Lord Baltimore 197
Camballin, Western Australia 162, 163, 168
Camden, S.C.: American Revolution battle (1780) 524, 533, map **525-526,** reenactment 532-533
Camels: Iran **39,** 41, 43
Cameras: Shutterless 492, photographs taken with **492-494;** Underwater: *Monitor* search 49, **50, 57,** 61
Cameron, A. M. 352
Cámpora, Héctor 296; Inauguration crowd **332-333**
Canada: ***The Loyalists: Americans With a Difference.*** By Kent Britt. Apr., pp. 510-539; Project FAMOUS 596, 597; ***Sea-swept Coves Beside a Forested Realm.*** Mar. supplement; *see also* Nova Scotia; Quebec
Canals: Provence, France 708, Roman **699;** *see also* Suez Canal, Egypt
Canjuers Plain, France 707
Canoeing: Hawaii **418-419;** Hudson River 629
Canso, Strait of, Nova Scotia 342, 353
Canyonlands National Park, Utah **437A, 438**
Cape Breton Island, Nova Scotia: ***Nova Scotia, the Magnificent Anchorage.*** By Charles McCarry. Mar., pp. 334-363
Cape Hatteras Lighthouse, N.C. **58,** 61
Cape Krusenstern National Monument (proposed), Alaska 744, 775, **776-777**
Cape Verdeans: Dialect 93; United States residents 90, 92-93, **93,** 98, 100, **101**
Cappa, Gérard 431, 435
Carbon dioxide: Earth's crust 867; Venusian atmosphere 861, 862, 867
Carey, Fabian 762-763
Caribbean region: Drake's exploits 224-225, **226,** 231, 242, 245, 246, 253, map 231; *see also* Martinique
Caribou: Alaska 759, 771, June supplement, hunting of 748, 762, 779, Mount McKinley National Park **437A**
Carnarvon, Western Australia 165, 177, 179; Salt production **170-171,** 179
Carpets: Persian **17,** 21, 25
Carroll, Jack 622
Carroll, Kent J. 797, 798
Cartagena, Colombia **244-245;** Drake's assault on 225, 242, 245, 246
Carter, Kate B. 444
Cartier, Jacques 729
Caspian Sea, Iran-U.S.S.R. 20
Castillo de San Marcos, St. Augustine, Fla. **511**
Cathedral Spires (peaks), Alaska **788-789**
Cathedrals: Córdoba, Spain 839; Seville, Spain 848-849; Tanzania 503
Cats: Siamese cat **683**
Cattle: Argentina 309, **310-311,** 311, 314, 315, 317; Drought-emergency sales **490-491,** 505; Hawaii (island) ranches 411-412, **414-415,** 423, 425; Western Australia **151,** 163, **163-165,** 167, 168, 180, 187
Cave art: ***Exploring the Mind of Ice Age Man.*** By Alexander Marshack. Jan., pp. 64-89
Cave dwellings: Setenil, Spain **854-855;** Temporary dwellings: Kurdish refugees **370,** 378, ***Six Months Alone in a Cave*** (biorhythm research). By Michel Siffre. Mar., pp. 426-435
Caves, underwater: ***Into the Lairs of "Sleeping" Sharks.*** By Eugenie Clark. Apr., pp. 570-584
Caviar: Iran 20; U.S.S.R. 20
Cemeteries: Alaskan Indians **752-753,** 758; Old Granary Burying Ground, Boston 521; Old Loyalist Burial Ground, Saint John, New Brunswick **516**
Centenary, Rhodesia 653
Central Bank of Iran, Tehran 7
Centre National pour L'Exploitation des Océans (CNEXO): Project FAMOUS 597
Centre Océanologique de Bretagne, Brest, France **600**
Ceres (asteroid): Size 294
Cerro de Pasco, Peru: Silver export **229**
Césaire, Aimé **137,** 139-140
Cézanne, Paul 711, 714-715
Chaco (province), Argentina 307; Cattle pens **310-311**
Champlain, Samuel de 345
Champlain, Lake, valley: New York **624-625**
The Changing World of Canada's Crees. By Fred Ward (Black Star). Apr., pp. 541-569
Channel Islands, Calif.: Pelicans 123
Charles Center, Baltimore, Md.: Reconstruction of area **196,** 211-212, 213
Charles Martel (the Hammer) 839
Charleston, S.C.: American Revolution 524
Chase, Allen 187
Chatambarera, Godfrey **666**
Chavunduka, Gordon 670
Cheerleaders: Nulato, Alaska **754-755**
Cheslock, Louis 199
Cheynes Beach Whaling Company: Western Australia 183, 185, whaling operations **184, 185**
Children: ***The Family: A Mormon Shrine.*** Apr., pp. 459-463; Mortality rate: Underdeveloped countries 478
China, People's Republic of *see* Tanzania, for China's investment of people, money, and goods in Tanzania
Chissano, Joaquim 504, 670
Chisumbanje, Rhodesia: TILCOR projects 665
Chivor mine, Colombia: Emeralds from **245**
Choman, Iraq 369, **382-383**
Chona, Mainza **478**
Chournos, Nick 470, 473
Chournos, Sam 473
Christensen, Willam 448, 465-466
Chromium: Rhodesia: Export 666, mine worker **667**
Chugach Mountains, Alaska 744, 759, **760-761,** 763
Chukchi-Imuruk National Reserve (proposed), Alaska: Birds **790**
Chukchi Sea **776-777**
Ciaccia, John 545
Cimarrons 224, 225, **226,** 253
Cinta Largas (Indians): Brazil 256, 268
Cintra, Jorge **103**
City of Refuge National Historical Park, Hawaii (island) 416
Civil War, U. S.: Ironclad gunboats *see Monitor*
Civil wars *see* Kurdish rebellion
Clark, Aya **574,** 578, 584
Clark, Eugenie **574, 580-581,** cover ill.; ***Into the Lairs of "Sleeping" Sharks.*** Apr., pp. 570-584
Clergue, Lucien 698
Clinton, Sir Henry 524
Clove market: Zanzibar 500, 501, 503

Clyde, Robert, family 472; ***The Family: A Mormon Shrine***. Apr., pp. 459-463
Clyman, Jim 446
Coal mining: Nova Scotia 344, **344,** miners **344-345**
Cobroti (Txukahamei Indian) **281**
Cockburn, Vivien 465
Cohen, Nathan 203
Colden, Lake, N.Y.: Campsites 635
Coldspring (planned community), Baltimore, Md. 212
Cole, Mr. and Mrs. Arthur 674
Colladay, Frank G. 456
Colombia: Drake's exploits 242, 245, 246
Colonial America: ***The Loyalists: Americans With a Difference***. By Kent Britt. Apr., pp. 510-539
Communion service, silver: Gift to Mohawks (1712) 532, **532**
Computer application: Images, reproduction of 467-468
Condie, Richard **449**
Confederacy: Ironclad *see Merrimack (Virginia)*
Connecticut: State historic site 533-534, **539**
Conservationists: Alaska 731, 734, 735, 740, 744, 745, 748, 759, 772; Provence, France 705, 708, 709
Container shipping: Nova Scotia 338, 347, port for **346**
Continental drift: Americas and Africa 585; ***Project FAMOUS—Man's First Voyages Down to the Mid-Atlantic Ridge***. May, pp. 586-615: I—***Where the Earth Turns Inside Out***. By J. R. Heirtzler. pp. 586-603; II—***Dive Into the Great Rift***. By Robert D. Ballard. pp. 604-615
Cook, James: Hawaii landings 416, 420, 423
Cook, Peter **538**
Cook Inlet, Alaska **760-761,** 763
Cooperatives (*Ujamaa* villages): Tanzania 478, 479, 482, 484, 486, 490-491, 504, dissatisfaction in 505, 509
Copper: Alaska 758; Zambia export 479, **481**
Copper mine: Utah **464**
Corals: Elkhorn **437;** Mid-Atlantic Ridge **593, 594**
Córdoba, Argentina 309, 323, 327
Córdoba, Spain 838-839, 842; Guitar maker 839, **842;** Mosque 839
Cornwallis, Charles, 1st Marquis 524
Correia, David 179
Corrientes (city), Argentina **306,** 307; Carnival, pre-Lenten 307, **308,** 309
Corrientes (province), Argentina 306; Capital **306,** 307, 309; Crops 306; Governor 309
Corte Real, Miguel 90, 98, 99, 105
Costa del Sol, Spain 837, 843-844, 856; Hotels **836-837**
Costa Rica: Bromeliads 389, **395**
Costas, Carlos **109**
Costumes *see* Festivals, for various
Côte d'Azur, France 693, **710-712,** 715
Cotton: Rhodesia 665, 666, workers **663, 671**
Cousteau, Jacques-Yves 609
Cox, Robert 323
Crab: Bromeliad ecosystem **393**
Crafts: Cree Indians 548-549, **552, 559,** 563, **566;** Provence, France 698, 700, 715; United States **870-871,** 871-872
Crane Cove, Nova Scotia: Aquiculture 362
Cranes, floating (mechanisms) **796, 797,** 798, 806
Crayfish: Australia 181, 182
Crees (Indians): ***The Changing World of Canada's Crees***. By Fred Ward (Black Star). Apr., pp. 541-569
Beliefs 551, 556
Canadian government, relations with 545, 547, 556-557, 560, 565, 568
Children 547, **547, 548, 554-557,** 556, 558, **560**
Climate 541; Temperatures 552, 561, 565, 566
Diet **540, 550,** 553, 554, 556, 557, **557,** 561, 562-563, 565
Economy: Income 541, 549, 556, 557, 565; Jobs 544, 547, 556, 560; Unemployment 556, 557, 560; Welfare payments 541, 556-557, 560
Education 547, 556, 560
Fishing 553-554, **564;** Rights 544, 545, 553, 557
Handicrafts 548-549, **552, 559,** 563, **566**
History 544, 545, 547, 554, 556, 559
Housing **542-543,** 545, 547, **548-549,** 556; Tepees **540,** 549, **550, 551,** 553, 554, 563, **566-567**
Hunting 541, 547, 551, 552, 553, **558-559,** 561-563; Rights 544, 545, 557
Landholdings 541, 544, 545, 553; Map 544; Royalties 544, 545
Languages 547, 554, 560
Population 541, 544
Quebec government, relations with 541, 544, 545, 556-557, 560
Traditional life **540,** 541, **550-552,** 553-554, **554, 555,** 556, **558-559,** 563, 565, **565;** Threats to 541, 544, 545, 547, 557, 568
Transportation: Airplanes 545, **547,** 556, 561-562, 566, 568; Minibike **560;** Snowmobiles 560, 561
Trapping 541, 547, 548, 566; Beaver 553, 556, 565, **565,** 566, 568, **568-569;** Rights 544, 545, 557
Tribal government 541, 547, 560; Administrators 545, 547, 556-557; Chief 544, 545, 547, 553, **558,** 560; Election 547, **560-561**
Women **548,** 549, **550-552,** 553
Crinoid: Mid-Atlantic Ridge **595**
Cro-Magnon man:
A Bold New Look at Our Past. By the Editor. Jan., pp. 62-63
Exploring the Mind of Ice Age Man. By Alexander Marshack. Jan., pp. 64-89
And animals 73; Images of **62-63,** 63, 67-68, **68, 69,** 70, 73, 74, 75-76, **75-81,** 79-80, 82, **83, 88-89,** cover ill.
And plants 73; Images of **62,** 63, **63,** 70, 73, 80, **81,** 82, **83,** 89
Appearance in Europe 66, 71
Artwork: Cave art **64-65,** 66-67, 70, 73, 74-76, **75-81,** 78-80, 82, 86; Engravings 62-63, **62-63,** 68, **69,** 70, 73, 80, 82, **83,** 84, **84-89,** 86-87; Meanders **64-65,** 74, 75, 80, **83,** 84-89, **86, 87;** Statues, ivory 67, 68, **68**
Intellect, clues to 89; Art images, use and reuse of 68, 69, 76, 82, 84; Notation 65-66, 67, **67,** 68, **69,** 73; Symbolism, use of 62, **62-63,** 63, 65, 66, 67-68, **68, 69,** 70, 73, 74-76, 79, 80, **81,** 82, **83-89,** 84, 85, 86, 87, 88-89; Time, recording of (hypotheses) **62-63,** 63, 65-66, **67,** 68, **69,** 70, 73, **78,** 80, 82, **83-85,** 84; *see also* Artwork, *above*
Name origin 66
Physical structure 66, 71
Speech 82, 89
Tools 65, 66, **66-67,** 67, **69,** 73, 80, 82, **83;** Presumed 62, **62-63,** 68, 74
Crown Jewels: Iran 7
Crustaceans *see* Spiny lobster
Curley, Horace **178,** 179
Curtsinger, William R., photographer: ***Bad Days for the Brown Pelican***. Jan., pp. 111-123
Cyana (French diving saucer): Project FAMOUS 589, 597, **601,** 602, 605, **609,** 613, dives, number of 602

D

DDE (DDT residue): Factor in pelican decline 113, 123
DDT ban: United States 113, 123
Dale, Bruce, photographer: ***Alaska: Rising Northern Star***. June, pp. 730-767
Dalgleish, Archie 653
Dampier, William 162
Dampier, Western Australia 161,

176, 177; Iron 173, furnace **174**; Oil exploration **159**; Saltworks **170**
Dams: Iran 20, **24**, 25, 31; Verdon River, France 707, 708; Zambezi River, Africa 649
Dancers: Ballet West: Utah **448**, 465-466; Cree wedding **563**; Flamenco 850, 856, *sevillanas* **851**; Lion dance: Rhodesia **659**; Lithuanians **193**; Martinique **142**; Perth City Ballet **168**; Portuguese-American folk dance **90-91**; Scottish folk dance: Nova Scotia **347**; Txukahamei Indians 275, **280-281**
Dar es Salaam, Tanzania 479, **480-481**, 483, 490, 503, 504; Buildings, notable 479, 484, 490, State House, colonial **480-481**; Industry on outskirts 486; Port facilities 479, **480-481**, 491; Suburbs 505; University 486
Darius I, King (Persia) 4
Darius III, King (Persia) 35
Dasht-e Kavir (desert), Iran 20
Dasht-e Lut (desert), Iran **18-19**
Daumas, Daniel 705, 707
Davenport, William: ***Provence, Empire of the Sun.*** May, pp. 692-715
Declaration of Dependence (1776): New York Loyalists **510**
Decoys, goose 553, **558-559**
Deer: Ice Age: Cro-Magnon images 80, **83**, fallow **73**, red **72-73**, reindeer **72**, roe **72**; White-tailed: Adirondacks 622-623, **632**
Deerfield, Mass. 352
Delabarre, Edmund Burke 105
Delaware: Loyalist executed 521
Del Norte Navigation System 61; Transponder **58**
Del Rio, Texas *see* Midnight Cave
Dennis, Charley 362
Deversoir Causeway, Suez Canal **796-797**, 798
Devil's Throat, Iguazú Falls, Argentina-Brazil **304-305**
Devon, England: Drake's associations with 219, 223, 240, 246, 247, 253
Diamond, Albert 556-557
Diamond, Billy 544, 545, 547, 553, **558**
Diamond, Charlie 553-554, 561-562, 565, **565-567**, 568
Diamond, Gilbert **560**
Diamond, Philip 553
Diamond, Stanley **560**
Diamond Rock, Martinique **128-129**
Diamond Shoals, Atlantic Ocean 59; Light Station 61
Dias, Jose, and family **94**
Didon, Louis 66
Dietrich Valley, Alaska 752-753
Dighton Rock, Berkley, Mass.: Markings and interpretation of **98**, 105
Dingoes: Australia **178**, 179-180
Dinis, Edmund **104**
Dinneen, Larry 735
Dinsmore, Sam 765
Diorama: American Revolution battle site **524**
Discovery, R.R.S.: Project FAMOUS 596
Diseases: Primitive tribes' non-immunity to 254, 264, 268, 280
Dive Into the Great Rift (Mid-Atlantic Rift). By Robert D. Ballard. May, pp. 604-615
Divers: Pearl: Western Australia 168, 170-171; Salvage workers, Suez Canal **792-794**, **798**, 806
Diving Amid "Sleeping" Sharks. By Eugenie Clark. Apr., pp. 570-584
Diving saucers *see Cyana*
Dizin, Mount, Iran: Skiers **21**
Dodoma (city), Tanzania 480, 503
Dodoma Region, Tanzania: Grape growing 474
Dogs **656**, **669**; Blue heelers 423; Bouvier des Flandres **709**; Dingoes **178**, 179-180; German shepherd **617**, 622, 634, 635; Sled dogs 737, 744, **756**, June supplement
Domecq, Alvarito: Ranch **844-845**
Domínguez, Francisco Atanasio 446
Dominican Republic: Drake's attack 242
Domino game: Zahara, Spain **857**
Donkeys: Kurdistan **366-367**, **384**
Donnelly, John D. 597, 604, 605, 606, 608, 610, 612, 613, **614**, 615
Dordogne (department), France: ***Exploring the Mind of Ice Age Man.*** By Alexander Marshack. Jan., pp. 64-89
Doubilet, David, photographer: ***Into the Lairs of "Sleeping" Sharks.*** Apr., pp. 570-584
Doucet, David 351
Doughty, Thomas 232
Dragonfly nymphs **390-391**
Drake, Sir Francis 149; ***Sir Francis Drake.*** By Alan Villiers. Feb., pp. 216-253
Battle tactics: Ambushes 225, **226**; Broadside cannonades 246, 247; Chain shot 238; Fire ships 230, 247-249, **248-249**; Landing parties 224, 242, 245, 253
Booty 224, 225, 228, 231, 237, 238, 240, 241, 245, 246, 253
Caribbean exploits 224-225, **226**, 231, 242, 245, 246, 250-251, 253; Map 231
Character 217, 231, 238, 246, 247, 253
Circumnavigation of earth 216, 231, 232, 235, 236-238, **238-239**, 240; Map 230-231
Death 251, 253
Knighted 240, **241**
Maps of voyages 230-231
Pacific exploits 228, 231, 237-238, **238-239**, 240; California landing 216, 220-221, 223, 231, 240, map 220; Map 230-231
Portrait and paintings of **217**, **226**, **241**
Slave trade 223, 224
War with Spain 223, 243, 246; Spanish Armada 230, 247-249, **248-249**, 253, route of (map) 230
Youth 223-224
Drake, John 225
Drake, Joseph 225
Drake Navigators Guild 216
Drake Passage, South Atlantic-South Pacific Oceans 236
Drakes Bay, Calif. 216, 220, **221**, 223
Drinnan, Roy 362
Drought: Tanzania 474, 481, 491, cattle, drought-stricken **490-491**, 505
Dry Creek campground, Alaska 758
Drysdale, George Russell 187
Dukan plain, Iraq **378-379**, 379
Duke University, Durham, N.C.: Research vessel 49, **50**, 51, **56**, **57**
Durance River, France **702**
Dzivaguru, Chief (Shona deity) 658

E

Earth: Atmosphere 861, 867; "greenhouse effect" 861; Meteorite bombardment 868
Earthquakes: Alaska 759, 760, 783; And tsunamis 403; Mid-Atlantic Rift 588, 596, 597, 603
East, Robert 517
East Granby, Conn.: Old New-Gate Prison 533-534, **539**
Eastmain River, Canada **546**
Eastward (research vessel) 49, 51, 56, **57**, 60-61; Equipment 56, 57, **57**; Navigational system **56**; Search track: Map 56
Echo soundings *see* Sonar
Ecology: Provence, "a peculiar treasure" 705, 709; Unbalanced by alien species: Hawaii 420
Ecosystems: ***Hidden Worlds in the Heart of a Plant.*** By Paul A. Zahl. Mar., pp. 389-397
Edgerton, Harold 49, 56, **58**, 61
Eels: Moray eel **823**
Eggmann, Carmen 320, 321
Eggmann, René 320, **320**, 321
Egypt, ancient: Canal building 801
Egypt, Arab Republic of: ***New Life for the Troubled Suez Canal.*** By William Graves. June, pp. 792-817
Army 812, 813, 816; Demolition teams 806, **808**, **809**, 810, 815; Maneuvers **812-813**

Canal revenue (1956-1966) 802
Cities, war-battered 793, **794-795,** 797, 798, 800, 804, 805, 812, **814-815**
Government officials **796,** 800, 816
Industry, future 801
Laborers **814-815**
Land-reclamation plans 801, 816
Military equipment, Soviet-made **792-793,** 798, 808, **812, 813,** 815, 816
Oil industry: Proposed improvements in 800, 801
President *see* el-Sadat, Anwar
Reconstruction; new development, proposed 797, 801, 815, 816; Costs, estimated 816
Refugees 793, 800, 816; Returning of 800, 804, 805, 815, **817**
Transportation, proposed improvements in 801
Wars with Israel 793, 794, 797, 798, 800, 804, 805, 808, 810, 812, 813, 815; Disengagement agreement 797, 801, 813, 816; War damage *see* Cities, *above*
see also Suez Canal, *outlined*
Egyptian art: Walters Art Gallery, Baltimore, Md. **202**
Egyptian-Israeli buffer zone 810, 815; Map 801
Egyptian-Israeli cross-canal fighting (1967-1973) 794, 798, 800, 805, 812
Egyptian-Israeli war (1956) 798
Elburz Mountains, Iran 6, 20
Electricité de France 707, 708
Elephants: Africa 474, 486, 488, 490, **492,** 504, 505, 645, 649, 668
Elizabeth I, Queen (England): ***Sir Francis Drake.*** By Alan Villiers. Feb., pp. 216-253
Elk: Utah **468-469**
Elliott, John **536**
Ellis, John: Memorial to **536**
El Puente (underwater cave), Mexico 574, 575, 578, 584
El Qantara, Egypt: War damage 800, 804
Emami, Fatameh 21, 25
Embry, Robert C., Jr. 212
Emeralds: Colombia **245**
Emigration Canyon, Utah 445; Monument **442,** 445
Endangered species: Preservation efforts 618; *see also* Brown pelican
Endangered species list, U. S. 113, 185
Energy crisis 1
Energy research 468
Energy source: Volcanic heat 410
England 149; ***Sir Francis Drake.*** By Alan Villiers. Feb., pp. 216-253
English (language): Arabic words 843
English Channel: Spanish Armada-English Navy battle 224, 230, 246-249, **248-249,** 253, route of Armada (map) 230
Enoch Pratt Free Library, Baltimore, Md. 199; Librarian 208
Enrique el Cojo (Henry the Cripple, dancer) 856
Epiphytes *see* Bromeliads
Ericson, Leif 338
Ericsson, John 55, 56, 58
Escalante, Silvestre Vélez de 446
Eskimos **774-775;** ***Alaska: Rising Northern Star.*** By Joseph Judge. June, pp. 730-767
Esmeralda, Merche 856
Esperance, Western Australia 187
Esperance Plains Company: Western Australia 187
Esquel area, Argentina 320, **320-321**
Eugénie, Empress (France): Suez Canal opening (1869) **803**
Europe: Africa, rule in 478, 479, 483, 486, 487, 490, 498, 500, 503, 504, 505; ***A Bold New Look at Our Past.*** By the Editor. Jan., pp. 62-63; ***Exploring the Mind of Ice Age Man.*** By Alexander Marshack. Jan., pp. 64-89; *see also* England; France; Spain
European continental plate, drift of 588, 596
Evans, David 467, 468
Evans & Sutherland Computer Corporation, Salt Lake City, Utah 468
Evans Coal Mines, Inverness, Nova Scotia **344;** Miners **344-345**
Ewan, Pete and Annie 758
Expeditions and research *see* Animals: Animal studies (listing); Biorhythm research; *Monitor* expedition; National Geographic Society: Grants; Project FAMOUS; Space flights and research
Exploring the Mind of Ice Age Man. By Alexander Marshack. Jan., pp. 64-89
Eye, artificial 467

F

FAMOUS (French-American Mid-Ocean Undersea Study) *see* Project FAMOUS
Fairbanks, Alaska 731, 734, 738, 748, 758, 759, 762-763
Falabella, Julio 317, **317**
Falah-Nejad, Ali 26-27, 30
Fall River, Mass.: Industries 100-101, sausage factory **100;** Portuguese community 93, 95, **99, 100,** 101, **104,** bride and groom **108**
Family life: ***The Family: A Mormon Shrine.*** Apr., pp. 459-463
Fanning, Edmund 533
Farah, Empress (Iran) **8,** 19
Faria, Joseph **104**
Fátima, Our Lady of (statuary) **94**
Favor, Homer E. 214
Fayaze, Mohammad 40-41
Federal Field Committee for Development Planning in Alaska 763
Felipe, Juan 242
Felix, Valentina **97,** 101, 103
Fellows, Jo-Ann 517
Fells Point, Baltimore, Md. 198; Fun Festival **192**
Ferdinand III, King (Castile) 842
Ferdinand and Isabella: Conquest of Granada 843
Fernandes, Joseph **104,** 105
Fertility symbols: Nazcas 726, **727**
Festivals; celebrations: Australia 183; Baltimore, Md. **192, 193,** 204-205; Canada's Maritime Provinces Mar. supplement; Corrientes, Argentina, carnival 307, **308,** 309; Iran 2, 6; Maine Mar. supplement; Martinique *Carnaval* **144-147;** Portuguese-American **90-91,** 93, **94,** 95, **95;** Provence, France **694, 695,** 700-701; Tanzania **474-475, 478, 482-485,** 503; Txukahamei Indians **274, 276-277, 280-281;** Utah **440-441,** 466
Fire ships: Spanish-English naval battle 247-249, **248-249**
Firearms *see* Artillery; firearms
Fish market: Baltimore, Md. **194**
Fisher, Allan C., Jr. 585; ***Rhodesia, a House Divided.*** May, pp. 641-671
Fishermen: Andalusia, Spain **836-837,** 856; Martinique 124, 126-127, 130-131, **141,** 148; Nova Scotia 339, 344, 351, 362, **363;** Portuguese 98, 100, **102,** 103, **103,** 105, **242-243,** 338-339; Tanzania 501, 504, **507;** Tierra del Fuego **325**
Fishes: Atlantic: Composite painting Mar. supplement; Barjacks 571, **572-573;** Barracuda **122;** *Chaunax pictus* **594;** Drum, black **194;** Grouper, Nassau **823;** Hake **102;** Ice Age images **62,** 63, 68, 74, 75, 76, 80, **89;** Pike, northern 553, 554, **564;** Piranha 273; Rattail fish **591;** Remoras **575,** 579, **580-581,** 583, 584; Salmon, Atlantic: Ice Age 63, 68, **73,** Cro-Magnon engraving **62,** 63, 68; Sardines (*dagaas*) 504, 506; Whitefish 553, smoking **540;** Whiting **102;** *see also* Sharks
Fishing: Bow and arrow **266,** 268, 282; Crab fishing: Tierra del Fuego **325;** Crees 541, 553-554, **564,** rights 544, 545, 553, 557; Hawaii 416-417; Periwinkling: Grand Manan (island), New Brunswick **522;** Poisoning, for capture 266, 268, 282; Tuna fishing: Hawaii 417, Nova Scotia 351
Fishing, commercial: Australia 179, 181, 182; Indian Ocean

501; Martinique 124, 126-127, 130, **140-141,** 148; Massachusetts **102,** 103, 105; Nova Scotia 351; Tanganyika, Lake, Tanzania 504, **507**
Fishing, sport: Adirondacks 617, **620-621,** 629, 634; Tuna cup match: Nova Scotia 351
Fitzgerald, F. Scott 199
Fitzroy River, Western Australia: Irrigation project 163, 168
Flamenco (music and dance) 833, 839, 842, 845, 850, **851,** 856
Fletcher, Francis 231, 235
Flight to Venus and Mercury (Mariner Unveils Venus and Mercury). By Kenneth F. Weaver. June, pp. 858-869
Float fishing: Hawaii 417
Flood, Tom and Mary 731
Flooding: Rufiji (river), Tanzania **506-507**
Florida: Loyalists 510, 535; *see also* Tarpon Key
Flowers: Alaska June supplement; Jasmine **704;** Maiden's Blush rose **522;** Orchids: Hawaii **398,** 399, 405, 407, **410,** indigenous to 407, rescued from lava 407, 410; Poinsettias **421;** Tulips **320-321;** *see also* Bromeliads
Food chain 123; Bromeliad ecosystem 389, 390, 391, 392, 394
Food shortages: Tanzania 478, 481, 491, 492
Foote, George 335
Fort de France, Martinique 135, 136, 139, 143, **144-145,** 147, 148; Mayor **136,** 139-140
Fortescue Falls, Western Australia **167**
Fortress of Louisbourg National Historic Park, Nova Scotia 347, **348-349,** 351
Forty-Sixers (Adirondack climbers) **631,** 635
Fossarieu, Charles de 135
Fossarieu, Yveline de Lucy de 134-135
Foster, Dudley 597, 605
Four New Books: Handcrafts, Inca Empire, The Universe, The Rockies. June, pp. 870-874
Fourth of July celebrations: Portuguese-Americans **90-91, 94, 95;** Utah **440-441**
France: Church, oldest 711; City, oldest 709; Colonial history 345, 347, 348-349, 352; ***Exploring the Mind of Ice Age Man.*** By Alexander Marshack. Jan., pp. 64-89; Scientific research *see* Project FAMOUS; *see also* Martinique; Provence
Frank, Johnny **730-731,** 759, 762; Camp **732-733**
Franklin, Benjamin 533
Franklin, William 533, 534
Fredericton, New Brunswick: Loyalist history 515, 517
Freetown, Sierra Leone: Black settlers from Nova Scotia 536, 538, descendants **536;** Methodist church **536-537,** plaque **536**
Frehsee, Rick, photographer: ***Strange March of the Spiny Lobster.*** June, pp. 819-831
Frémont, John C. 446
French-American Mid-Ocean Undersea Study *see* Project FAMOUS
French Angel (fishing boat) 351
Frog, tree **388,** 389; Eggs **388**
Fuke, Sidney M. 404
Fulton, John 851-852
Fundy, Bay of 342, 352; Tidal bore **342**
Furs: Adirondacks 628; Beaver pelts **542-543,** 554, 561, 565, 568, 633; Wolf fur **745**

G

Gabarus Lake School, Nova Scotia **350**
Gaelic (language) 345, 355
Gaelic College, St. Anns, Nova Scotia 355-356
Gahan, Gordon W., photographer: ***Nova Scotia, the Magnificent Anchorage.*** Mar., pp. 334-363; ***Sir Francis Drake.*** Feb., pp. 216-253
Gambling casino, world's largest **312-313**
Garcia, Carlos 575, 578, 579, 584
Garcia Vazquez, Zunifredo 847
Gard River, France 692, **699**
Gardel, Carlos 309, **313**
Gas, natural: Western Australia 160, 173; Iran 6, 30, 31
Gascoyne ("upside-down" river), Western Australia 177, 179
Gases, pressurized 290
Gates, Horatio 524, 533
Gates of the Arctic National Park (proposed), Alaska 744, 749, 752, **770-771**
Gauchos: Argentina **232, 310-311,** 315
Geese: Blue geese 553, **558,** 559; Canada geese 553, head, decorated **558;** Nene 411
General store: Long Lake, N.Y. **630**
Geodynamics Project: Studies *see* Project FAMOUS
Geology *see* Mid-Atlantic Rift; *and* Mercury (planet)
George III, King (Great Britain) **517;** Land grants for Loyalists: Document **518-519**
George, Anita 439, 571, **574, 577,** 578, 584
George, Lake, N. Y. **636-637**
Geraldton, Western Australia 180-182; Sand dunes **154-155**
Germany: Africa, rule in 479, 483, 487, 503; Ice Age images 67, 68, **68,** 82, 84, **85;** Scuttled ship 315, 317
Ghost towns: Western Australia **152-153,** 158
Giacoumakis, Koula **193**
Giampietro, Paolo 704
Gibaud brothers **180, 181**
Gibraltar: Rock of Gibraltar **836-837;** Spanish frontier closed 837
Gibson, Robert 766
Gilpin, Sharon **557**
Giralda (bell tower), Seville, Spain 849
Glacier National Park, Mont. **874**
Glaciers: Alaska **786-787,** June supplement
Glennallen, Alaska 758
Glomar Challenger (Deep Sea Drilling Project ship): Project FAMOUS 597, 602
Glyptodonts (extinct mammals) 314
Goats, wild: Hawaii 420
Gogh, Vincent van 711, 713-714
El-Gohary, Mohsen 793
Gold: Alaska 758, 772; Western Australia 153, 158, 171, miners **174**
Gold and silver treasure hoards *see* Spanish treasure
Gold Camp, Alaska **732-733,** 762
Golden Hind (ship): ***Sir Francis Drake.*** By Alan Villiers. Feb., pp. 216-253
Golden railroad spike **466,** 473
Gomaa, Mustafa **798**
Gönnersdorf, Germany: Ice Age engravings 82, 84, **85**
González, José 851
Good Hope, Cape of, South Africa: Shipping route: Compared with Suez 797, 800, map 801
Goodall, Natalie 322, 325
Goodall, Tom 322, 325
Gordon, Eugene 668, 670
Gorée Island, Senegal: Slave trade 223
Grace Harwar (windjammer) 149, **149**
Graf Spee (German pocket battleship) 315; Former crew member **315**
Graham, Russell **615**
Granada, Kingdom of 842-843
Granada, Spain 842-843; The Alhambra **834-835,** 842-843; Siege of 843
Grand Manan (island), Canada: Loyalist descendants **522-523**
Grand' Rivière, Martinique 124, 131, 148
Grand Teton National Park, Wyo. **438**
Grapes *see* Wine growing
Grasse, France: History 707; Perfume industry 704, **705**
Graves, William: ***Iran: Desert Miracle.*** Jan., pp. 2-47; ***New Life for the Troubled Suez Canal.*** June, pp. 792-817
Great Bitter Lake, Egypt 798
Great Bitter Lake Fleet (trapped ships, 1967-1975) 806, **807,** 810, 811, 815; Crews **806, 807,** 810-811
Great Britain: Colonial history: Africa 479, 487, 490, 498, 500,

801, Canada 347, 349, *see also* Colonial America; Project FAMOUS 596; Rhodesia, relations with 642, 645; *see also* England
Great Rift Valley, Asia-Africa: Kenya 673, 674, **674-677,** 678, **681**
Great Salt Lake, Utah 440, 447, **452,** 456; Bird rookery 470; History of 446, 447, 456; Life in 452, 456; Minerals harvested from **453,** 456
Greeks, ancient: Marseille, France 693, 712; Spanish colonies 838
Green, Jack 158, **174**
Green, Peter **174**
Green Guard (Youth League): Zanzibar **474-475,** 503
Greene, Nathanael 524, 533
"greenhouse effect" 861
Grimaldi Castle, Antibes, France 714
Grime, Frank 166-167
Grosvenor, Gilbert Hovey: Photos by 358, **359**
Grosvenor, Gilbert M.: Editorials 1, 149, 295, 439, 585, 729
Grosvenor, Melville Bell 358
Gruening, Ernest 745
Guadalporcún River, Spain **854-855**
Guadalquivir (river), Spain 838, 848, 850, **850-851**
Guerrilla warfare: Rhodesia 641, 642-643, 649, 652-654, 662, casualties 643, 652, 653, kidnappings 642-643, 652, 654, supporters 652-653, violence 652, 653, 654; *see also* Kurdish rebellion
Guevara, Ernesto "Ché" 327
Guitar maker: Córdoba, Spain 839, **842**
Gulf Oil Canada Limited: Deepwater port, Nova Scotia **342-343,** 353, 355
Gürnt, Karl 315, **315,** 317
Gwalia, Western Australia **152-153,** 158
Gypsies: Andalusia, Spain 833, 842, 845, 846

H

HD-4 (hydrofoil) **359,** 361
The Habitation (1605 complex), Port Royal, Nova Scotia 345, 347; Reconstructed 347
Hack, Bob 666
Hafemeister, Hans **736**
Haida Indians: Alaska 766
Haili Congregational Church, Hilo, Hawaii **420**
Halabjah, Iraq **371**
Halberg, Franz 428
Halemaumau caldera, Hawaii (island) 407
Halifax, Nova Scotia 338, **346;** Harbor (1776) **513**
Halusky, Joseph 819
Hamburgers (clothing store), Baltimore, Md. **196**
Hamersley Iron: Western Australia 173, company towns 173, 176, mine 173, **174-175**
Hamersley Range, Western Australia 167; Iron mines 173, **174-175**
Hamilton, Edith 197
Hamilton Road, Kurdistan 368-369, 371, 376; Bridge **380-381**
Hammond, Jay 759
Hampden (community), Baltimore, Md.: Antique-car parade **193**
Hampton Roads, Va.: *Monitor* vs. *Merrimack* (1862) 48, 49, 58, **60**
Hamza, Ahmad Kamal 811-812
Hamza, Ali Salem 816
Handcrafts, Inca Empire, The Universe, The Rockies: Four New Books. June, pp. 870-874
Hannan, Paddy 158
Haqui, Mrs. Zakia **376**
Harberton, Estancia, Tierra del Fuego 322, **324-325**
Harding, Robert 678, 684
Harding Icefield, Alaska **786-787;** National monument, proposed 744, 787
Hart, Richard 208
Harvestman (arachnid) **394**
Harvey, David Alan, photographer: ***My Backyard, the Adirondacks.*** May, pp. 616-639
Hatfield, Richard **517**
Hatteras, Cape, N.C.: ***How We Found the* Monitor.** By John G. Newton. Jan., pp. 48-61
Hatton, Christopher 236
Haussner's (restaurant), Baltimore, Md. **188-189,** 195
Hawaii, Island of Fire and Flowers. By Gordon Young. Mar., pp. 399-425
Cook's landings 416, 420, 423
Development, slow 399, 404, 425
Environmental concerns 404, 420, 423, 425
Ethnic mix 404, 405, 411
Farming 417; Sugarcane 412, 423; Taro 405, 416; *see also* Orchids, *below*
Foods 399, 405, 413
Future hopes 425
History 405, 407, 412, 416, 420, 423, 425; Monarchy 399, 410, 413, royal home 412-413, 425
Japanese influence 399, 404-405
Language 417
Map 405
Mythology 399, 413, 416, 425
Orchids **398,** 399, 405, 407, **410;** Indigenous 407
Ranches 411-412, **414-415,** 423, 425; Beef production 415; *paniolos* 423
Recreation: sports 407, 412; Canoe racing **418-419;** Fishing 407, 417; Skiing **408-409**
Refuges for *kapu* breakers 416
Size 399; Map 405
Snow 399, **408-409**
Tourism 399, **406,** 412, 413, 425
Tsunamis 399, 403, 407, 416; Protection against 404
Volcanoes 399, **400-402,** 404, 407, **408-409,** 410-411, 425; Damage **403,** 407, 410-411, 425
Waterfalls 405, **423**
Hawaii (state): Missionary movement (1800's) 420
Hawaii Volcanoes National Park 420
Hawaiian Ocean View Estates, Hawaii (island) **403**
Hawaiian Volcano Observatory, Hawaii (island) 403, 407
Hawkins, John 224, 253
Hayot, Bernard 143, 147
Hayot, Joseph **133**
Headdresses: Txukahamei Indians **270-273, 279-281**
Headhunting: Nazca culture 724, 726
Hearst, George 456
Heart, artificial 467
Heber Valley, Utah **440-441, 468-469;** Clyde family and ranch **458-465,** 459-465
Hefter, Dale 439
Heirtzler, James R. **597;** ***Where the Earth Turns Inside Out*** (Mid-Atlantic Rift). May, pp. 586-603
Helicopters: Iranian army **23,** 25; U. S. Navy Sea Stallion **794;** Western Australia **164,** 167
Hemingway, Ernest 492
Hemingway, Patrick 492
Hensley, Willie 734-735
Herbert, John 649
Herbs *see* Bromeliads
Herkimer, Nicholas 531
Herrnkind, William F. **818, 828, 829;** ***Strange March of the Spiny Lobster.*** June, pp. 819-831
Hester, Minnie 549, 553
Hickel, Walter 759
Hidden Worlds in the Heart of a Plant. By Paul A. Zahl. Mar., pp. 389-397
High Peaks region, Adirondacks **616-617,** 623, 625, 629, 635
Highlandtown (community), Baltimore, Md. 190, **206-207**
Hiking: Adirondacks 626, 634-635, supplies **631**
Hill, Melvin 532
Hilo, Hawaii (island): Church **420;** Japanese influence 399; Mailbox with orchids **398;** Orchid farms 407, **410;** Parks 399, 404; Population 399; Senior citizens' center **404;** Tsunamis 403-404, protection against 404
Hilo Florists and Shippers Association 407
Hinman, Bob 759
Histoplasmosis 428

Hochschild, Harold K. 638
Holcomb, Robin **402**
Holy Rosary Roman Catholic Church, Kalaoa, Hawaii **421**
Holy Week: Andalusia, Spain 845-846, *nazarenos* **846**
Homesteading, urban: Baltimore, Md. 208, 212-213
Homesteads: Alaska 759, 763
Hondius, Judocus, map (1589) **220**
Honolulu, Hawaii 399, 417
Honomu, Hawaii (island) **412-413**
Hooker, Dick 158
Hooker Pastoral Company: Western Australia: Ivanhoe Station **150-151,** 167
Hoover, Herbert 158
Hopkins Plaza, Baltimore, Md. 213; Lithuanian festival **193,** 204-205
Hopson, Eben 736
Hormuz, Strait of, Iran-Arabian Peninsula 35
Horn, Cape, Chile 236
Horse races: Pimlico Race Course, Baltimore, Md. 203, **204-205**
Horses **630, 669;** Andalusia, Spain 844, **844-845;** Hawaiian ranch **414-415;** Ice Age **72,** Cro-Magnon art 67, 68, **68, 69,** 74, 75-76, **75-77, 80-81,** 82, **85, 88-89;** Miniatures **316,** 317
Hovercraft: Iran military **23**
Hoveyda, Amir Abbas **11**
***How We Found the* Monitor.** By John G. Newton. Jan., pp. 48-61
Howard, Joseph C. 214
Hubbard, William B. 290
Huber, Robert J. 467
Hudson River, N.Y.: Rapids 629
Hudson's Bay Company 545, 554, 557, 560; Rupert House Post established 545
Hulihee Palace, Kailua, Hawaii (island) 412-413, 425
Human images, prehistoric 84, **85, 88;** Female 67, 74, 75, 76, 82, 84, **84, 85**
Hummel, George **195**
Hunting *see* Adirondack Park; *and* Crees; Kreen-Akarores; Txukahameis
Hutchinson, Thomas 520, 538
Hydroelectric projects: France 707, 708; *see also* James Bay Development Project
Hydrofoil (boat) 358, **359,** 361; Models **358, 359**
Hydrogen: Automobile fuel 468; Pressurized 290

I

Ibex: Ice Age **72,** Cro-Magnon symbolism, used in **62,** 63, 70, 73, 80, **83**
Ice: Alaska **774-775, 784-787**
Ice Age: ***A Bold New Look at Our Past.*** By the Editor. Jan., pp. 62-63; ***Exploring the Mind of Ice Age Man.*** By Alexander Marshack. Jan., pp. 64-89
"Ice Highway": Alaska 759
Iguazú Falls, Argentina-Brazil 297, **303-305**
Imam Reza Shrine (mosque), Mashhad, Iran **44-45,** 46
Immigrants: ***New England's "Little Portugal."*** By O. Louis Mazzatenta. Jan., pp. 90-109
Immigration law: 1965 revision 90, 98
Inca Empire 872; Argentina 327
Indian Ocean: Oil exploration 158, 160, 173; Tanzania coast 474, 479, **480-481,** 486, 487, 491, **500-501,** 501, 503
Indians of North America: ***Alaska: Rising Northern Star.*** By Joseph Judge. June, pp. 730-767; Kidnapped by European explorers 729; Massachusetts 90, 105, burial ground 105; Micmacs 362; Mohawks 530, 532, **533,** 619; Rights of: Alaska's new approach 729; Utah 446; *see also* Crees
Indians of South America: Argentina 297, 301, 314, 321-322, 327, pre-Columbian art **301;** Brazil's treatment of 729 *see also* National Foundation for the Indian; Inca Empire 872; *see also* Kreen-Akarores; Nazcas; Txukahameis
Indians of the Caribbean: Arawak 131; Carib 124, 131
Indo-European stock: Iranians 6, 13, 20; Kurds 367, 368, 375
Influenza and nonimmunity of primitives 254, 264, 268
Ingenio Valley, Peru **720**
Ingonish, Cape Breton Island, Nova Scotia 339, 357
Ingram, Rhet **472**
Inkata Feed Yard, Camballin, Western Australia 162, 168
Insects 389, **390-391,** 394
Interior Alaska Trappers Association 763
International cooperation: Peace programs: ***New Life for the Troubled Suez Canal.*** By William Graves. June, pp. 792-817; Scientific research: ***Project FAMOUS–Man's First Voyages Down to the Mid-Atlantic Ridge.*** May, pp. 586-615: I—***Where the Earth Turns Inside Out.*** By J. R. Heirtzler. pp. 586-603; II—***Dive Into the Great Rift.*** By Robert D. Ballard. pp. 604-615
Into the Lairs of "Sleeping" Sharks. By Eugenie Clark. Apr., pp. 570-584
Inupiat Eskimo village: Alaska **748-751**
Inventions; inventors: Alexander Graham Bell 358, **358-359,** 361, 362; Willem J. Kolff 467
Inverness, Nova Scotia: Coal mine **344**
Io (Jovian moon) 292; Shadow **284**
Iradj, Khorram 20
Iran:
Iran: Desert Miracle. By William Graves. Jan., pp. 2-47
Area 6, 13
Economy 2, 6, 13, 20, 29, 46
Education **34, 35,** 40; Illiteracy rate 35, 40; Literacy Corps **34,** 40, 41
Facts and figures 13
Farming 25-26, **26-27, 32-33, 42;** Livestock 36, 40
Flag **13**
Foreign relations: Iraq 26-27, 30, 46; Oman 35; U.S.S.R. 20, 25, 46; U. S. 11, 20, 23, 25
Government 7, 11, 12; Ministers **11**
History 4-5, 6, 13, 20-21, 31, 35, 40, 45, 46; Archeological sites **4-5, 18-19**
Industry 2, 6, 12, **28, 29,** 30-31, 46
Irrigation 25-26, **42, 43**
Map 13
Military forces 12, 20, **22-23,** 26-27, 30
Natural gas 6, 30, 31
Nomads **34, 36-39,** 40, 41
Oil 2, 5, 6, 12, 29, 30-31, 35; Oil field **30-31**
Oppression 11, 12
Pollution 20, **29**
Population 6, 13
Public health care 6, 12, **35**
Reforms: Land 26; Political 12, 46
Religion 21, 41, 43, 45, 46; Shrine **44-45,** 46
Royal family 5, 6, 7, **8-10,** 12, **12,** 19, 21, 23, 26, 29
Sports: Skiing **21;** Soccer **30-31**
see also Kurdish rebellion
Iraq: Iran, relations with 12, 26-27, 30; United States, relations with 386; Weapons, Soviet-made 26, 369, **374;** *see also* Kurdish rebellion, *outlined*
Iron industry: Western Australia 161, 167, 171, 173, **174,** 176-177, mine **174-175**
Ironclad gunboats: ***How We Found the* Monitor.** By John G. Newton. Jan., pp. 48-61
Irrigation: Iran 20, 25-26, *qanats* (aqueducts) 40-41, shafts 41, **42, 43;** Rhodesia 662, 665, 666, canals **664;** Western Australia 161, 163, 166, 168, 179
Isfahan, Iran 20-21, 25; Bazaar **17;** Pigeon towers near **32-33**
Isfahan School of Fine Arts, Iran 21
Isherwood, Myron O., Sr. 403
Islam: Iran 21, 45, 46; Shia sect 21, 45, 46, shrine **44-45**
Ismailia, Egypt 801, 810, 816, **817;** War damage **796,** 797
Israel: Wars with Egypt 793, 794,

XUM

797, 798, 800, 804, 805, 808, 810, 812, 813, 815, disengagement agreement 797, 801, 813, 816, fortifications, Sinai **797,** 798, **813,** 815
Italy: Ice Age images **86,** 86-87, **87**
Ivory, mammoth: Cro-Magnon statues 67, 68, **68**

J

Jahangiri family: Iran 40
Jamal Fuad 369, 371
James Bay Development Project: Quebec, Canada 541, 544, 545, 547; Construction **546;** Cost 544, 545; Map 544
James Bay Territory, Canada: ***The Changing World of Canada's Crees.*** By Fred Ward (Black Star). Apr., pp. 541-569
Japan: Oil from Iran 31
Jarvik, Robert 467
Java: Drake's voyage 240
Jean-Joseph, Frantz **135**
Jean-Joseph, Serge 135
Jeffery, David: ***Preserving America's Last Great Wilderness*** (Alaska). June, pp. 769-791
Jellyfish **824**
Jensen, Harry 810, 811, 815
Jesuit mission: Rhodesia: Schoolchildren **642-643,** 652, 653-654
Jesus Christ: Mormon beliefs 445
Jet Propulsion Laboratory, Pasadena, Calif. 858, **860**
Jiménez, Enrique 856
Jimmiken, Frances 556
Jimmiken, Lawrence 554, 556, 561-562, 563, 565, **566, 567,** 568
Jimmiken, Louisa **550, 551,** 556
Jimmiken, Raymond **555,** 556
John, George 766
Johns Hopkins Hospital, Baltimore, Md.: Medical innovations 194, **210**
Johns Hopkins University, Baltimore, Md. 194, 195; Lacrosse game **212-213;** President 215
Johnson, George, family **522-523**
Johnson, John 758-759, **763**
Johnson, Sir John, second Baronet of New York 532
Johnson, Sir John, sixth Baronet of New York **532**
Johnson, Michael **756**
Johnson, Paul **172**
Johnson, Susan 758-759, **763**
Johnson, Sir William, first Baronet of New York **532**
Jolley, Mark 456-457
Jones, Colin 61
Jones, Leonard 355, 356
Jordan, Allan 635
Joseph Conrad (square-rigger) 236, 240
Josephine, Empress (France) 148; Statue **124,** 148
Jouvet, Michel 435
Judge, Joseph: ***Alaska: Rising Northern Star.*** June, pp. 730-767
Jumbe, Aboud **478,** 498, 500
Jupiter: ***Mystery Shrouds the Biggest Planet.*** By Kenneth F. Weaver. Feb., pp. 285-294
Atmosphere 287, **288-289;** Belts **284-285,** 287, **290, 293, 294;** Components 287, 290, 291, 292; Cutaway diagram **289;** Pressure 287, 289, 290; Winds 287, 289, 290, 292
Core, possible 289, 290
Energy production 286, 290
Facts and figures 286
Great Red Spot **284,** 285, **290,** 291, **291,** 292, **294**
Life on, speculated 285, 292
Moons 292; Io 285, 292
Radiation belts 287
Radio energy 286, 292
Temperatures 287, 290
Jurat, Klaus 176

K

Kaapu, David **420**
Kachemak Bay, Alaska **736-737**
Kailua, Hawaii (island) 412; Kona Hilton **406;** Royal residence 412-413, 425
Kailua Pier, Hawaii (island): Singalong **417**
Kaimu, Hawaii (island) 407
Ka Lae, Hawaii (island) 416; Float fishing 416-417
Kalaoa, Hawaii (island): Church and poinsettias **421**
Kalgoorlie, Western Australia: Gold fields 158
Kalougine, Serge 704, **705**
Kamal Abdullah Naji 376
Kamehameha, King (Hawaii) 399, 410
Kanciruk, Paul 819
Kangaroos: Western Australia **172**
Kapoho, Hawaii (island): Destroyed by lava 407, 410
Kariba, Lake, Rhodesia 643, 646, 649, **660-661**
Karratha, Western Australia 173
Kasak, Agnes **751**
Katiyo, Rhodesia: Tea growing 665
Katmai National Monument, Alaska 745, **782-783;** Eaglet **784**
Kauai (island), Hawaii: Cook's landing 416
Kauffmann, John 749
Kayaking: France **708-709**
Kealakekua Bay, Hawaii (island): Cook's landing and death, site of 416
Keddy, William **353**
Keeler, William Frederick 55, 59
Keene, N.Y. 628; Backpacking store **631**
Kekopey Ranch, Kenya: Baboon study, site of 673, 674, **674-677,** 678, **681-683**
Keller, Helen 358
Kelly, Fred 49
Kenai Fjords, Alaska: National monument, proposed 744, 784, 787; Seals **784-785**
Kenai National Moose Range, Alaska 763
Kennecott Copper 758; Open-pit mine, Utah **464**
Kenney, Nathaniel T.: Africa article (1960) 585
Kennicott, Alaska 758
Kenya 486, 503, 505; Vice-President **478;** Wildlife *see* Baboon, olive
Ketchikan, Alaska **764-765,** 766
Kharg Island, Iran **23, 28,** 30-31
Khuzestan, Iran 25
Kidnappings: By terrorists: Argentina 314, 315, 323, 333, Rhodesia 642-643, 652, 654; New World explorers' kidnapping of Indians 729
Kidney, artificial: Inventor 467
Kilauea (volcano), Hawaii (island) 399, 407, 410; Caldera 407; Eruption potential 407; Vent **400-402,** 425, cover ill.
Kilimanjaro (mountain), Tanzania 474, **476-477,** 490
Killer whale: Nazca culture 726, pottery **724, 727**
Kimball, Spencer W. 444-445, **447**
Kimberley (region), Western Australia 168; Agriculture 161, 166; Cattle raising **151,** 161, **164-165,** 167, 168
Kimberley Research Station, Western Australia 166
Kimura, Shunichi 425
King, George **208**
Kings Mountain, S.C.: Battle of 533
Kirkuk, Iraq 369; Oil fields 367, 386
Kirtland, Ohio: Mormon settlement, early 445
Kites, tetrahedral 358, **358-359**
Kline, Fred: ***Baltimore: The Hidden City.*** Feb., pp. 188-215
Knights of Medusa 700-701; Officers **695;** Toast **694**
Knorr (research vessel): Project FAMOUS 591, 597, 602, 603, 605
Kobuk Valley National Monument (proposed), Alaska 744, **778-779**
Kohala (volcano), Hawaii (island) 407
Kohala Mountains, Hawaii (island) **414-415**
Kolff, Willem J. 467
Kona coast, Hawaii (island) 399, 407, 412, 416
Kona Hilton, Kailua, Hawaii (island) **406**
Kono, Takumi 407
Kosciusko, Thaddeus 524
Kosok, Paul 716
Koyukuk River, Alaska **741-742,** 745, 748, 749
Krasnianski, Eduardo 317
Kreen-Akarores (Indians) 270, 280, 281; ***Brazil's Kreen-Akarores: Requiem for a Tribe?*** By W. Jesco von Puttkamer. Feb., pp. 254-269

Adornment: Body paint **257,** 258, **259,** 262, 263, **264-267,** 268; Earrings **264, 267**
Chiefs **259,** 260, **265, 266**
Diet 260, 262, 266, 268
Fishing **266,** 268
FUNAI pacification activities: Attempts to contact: Acceleration of 258, 259, first 256, 257, gift offerings and reciprocation of 257, 258, **259, 264, 265;** First contacts 254-255, 258, **259,** 260, 268
Future of 254, 268
Games 268
Hairstyle 264, 266, **267**
Health 262; Influenza outbreak 254, 268, deaths 254; Medical care, acceptance of 255, **259,** 262-263, 264, 268; Nonimmunity 258, 264, 268
Hostilities 255, 258; Intertribal 254, 260, 264; Intratribal 263; Murder of intruders 254-255, 258, 264
Hunting 266
Labor, division of 262, 266, **266, 267**
Language 264
Medicine man 262, 263
Name, meaning of 264
Number of 254
Plants cultivated 262, 263, 266, **267**
Pottery skills, absence of 268
Reservation **261,** 264; Map 260
Size, legendary 258, 264
Song and dance 263
Stealing, absence of 268
Tools **264**
Villages 254, 262, **262-263,** 263, 264; Map 260
Weapons 255, 257, 258, **259,** 260, 264, **264, 266,** 268
Welcoming ceremonies 262
Krekon, Chief (Kreen-Akarore) **259, 266**
Kriews, Robert Miethe 237
Kristof, Emory 492; photographer: ***Dive Into the Great Rift*** (Mid-Atlantic Rift). May, pp. 604-615; ***Tanzania Marches to Its Own Drum.*** Apr., pp. 474-509; ***Where the Earth Turns Inside Out*** (Mid-Atlantic Rift). May, pp. 586-603.
Krusenstern, Cape, Alaska 744, 775, **776-777,** 779
Kuiper, Gerard P. 869
Kununurra, Western Australia 161
Kurdish rebellion 1, 43, 295; ***The Kurds of Iraq: "We Who Face Death."*** By LeRoy Woodson, Jr. Mar., pp. 364-387
Air strikes, Iraqi 369, 371, 376, 377, 378, 379, 381, 382, 386
Autonomy struggle, history behind 364, 368
Casualties 371, 376, 377
Financing of war 384
Guerrilla forces (Pesh Mergas) 364, **365-367,** 368, 369, 371, 376, 382, 384, 386; Leader **368,** 369, 386; Recruits **382-383**
Iranian involvement 366, 367, 369, 376, 379, 384, 386
Medical care 366, 376, **377**
Political party of rebels 364, 367, 384, 386
Radio station, clandestine 382
Refugees 367, 368, 369, 378, 382, 384, **387;** Cave dwellings **370,** 378
Revolution, history of (1961-1974) 364, 367, 368, 369, 379, 386
Skirmishes with Iraqi Army 366, 371, 376, 378, 379, 382
Supplies 369, 384; Food 379
Weapons: artillery 364, 369, 371, **374,** 386; Lack of 368, 371, 379, 382, 386
Women and children 367, **370,** 371, **375-377,** 377, 378, **383,** 384, **384, 387**
Kurdistan (region), Asia: ***The Kurds of Iraq: "We Who Face Death."*** By LeRoy Woodson, Jr. Mar., pp. 364-387
Kurdistan Democratic Party (KDP) 364, 367, 384, 386
Kurdistan Women's Federation: Head **376**
The Kurds of Iraq: "We Who Face Death." By LeRoy Woodson, Jr. Mar., pp. 364-387

L

LIBEC (Light behind camera): Project FAMOUS photography system 596, 597, diagram of **598,** photos by **598, 599**
LaBastille, Anne **617,** 618, **626, 631, 639;** ***My Backyard, the Adirondacks.*** May, pp. 616-639
La Cadena (reef), Mexico: Shark research 578, 579, 584
Lacrosse: Baltimore, Md. **212-213**
Ladd, Edmund 416
La Fay, Howard: ***Andalusia, the Spirit of Spain.*** June, pp. 833-857
La Gasa, Eric 389, **396**
Lahijan, Iran: Tea harvest **26-27**
Lake, Paul S. 199
Lake Clark National Park (proposed), Alaska 744, **791**
Lake Manyara National Park, Tanzania 486, 488, **492**
Lakes, man-made: Kariba, Rhodesia 643, 646, 649, **660-661;** Provence, France 707, 708
Lambs, roundup-processing of **462, 463,** 473
Land-claims settlement: Native Alaskans 731, 734, 735, 738, 740, 744, 750, 764, 766, 772
Land reclamation: Egypt's planned 816, map 801
Land-use plans: United States 618, Adirondacks 618, 634, 638, 639; *see also* Alaska: Land division; Rhodesia: Lands
langue d'oc see Provençal
langue d'oïl 705
La Plata, Argentina 317; Ranch near **316-317,** 317
La Roche, cave of, France: Ice Age artifacts 82, 84, **84**
Larson, Ricardo 314-315
Lascaux, cave of, France: Ice Age art 73, 76, 78, **78-81,** protection of 76-77
Lashgary, Firouzeh 7
Latham, Jim 658, 662
Launois, John (Black Star), photographer: ***Martinique: Liberté, Egalité, and Uncertainty in the Caribbean.*** Jan., pp. 124-148
Lava: *aa* 407; Molten **400-402,** 407, cover ill.; New land created by **403,** 407; *pahoehoe* 407, 608; Pastureland, turned into 423; Underwater formations **588, 591-593,** 608
Lava fields: Hawaii (island) **403,** 407, 411
Lava Tree State Monument, Hawaii (island) 407
La Vache rock shelter, France: Ice Age engravings 80, 82, **83, 88-89**
Laval, Baron de Rasque de 695, 700
Lawrence, Richard W., Jr. 622
Lead mines: Utah 454, 456-457
Leakey, Mary 488, **489**
Leakey family: Anthropological research: Africa 489
Leather: Cordovan 839; Moose skin **551**
Leavitt, Oliver 735
Le Blanc, Bruce 351
Le Carbet, Martinique **140-141**
Leeches **575,** 583
Leloir, Luis Federico 303, 306, **318**
Le Marin, Martinique: Bicycle race **134**
Léopoldie, Symphar 124, 126-127, 130, 131
Le Poirier, Martinique 148
Les Salles, France: Razing of 707, **707,** 708; Wedding **706**
Lesseps, Ferdinand de 798, **802,** 816
Lesser Antilles *see* Martinique
Le Testu, Guillaume 225
Lewis, John S. 287
Lexington Market, Baltimore, Md. 189-190, **194-195**
Life, extraterrestrial, possible: Jupiter 285, 286, 287, 290, 291-292; Message to **294**
Life With the "Pumphouse Gang": New Insights Into Baboon Behavior. By Shirley C. Strum. May, pp. 672-691
Lime Village, Alaska 766
Lincoln, Abraham 58-59
Lions, Albert 695, 698, 700, **700**
Liqueur *(pastis):* Provence 695
Literacy Corps: Iran **34,** 40, 41
Lithuanians: Baltimore, Md. 208, festival **193,** 204-205

XUM

Little Cottonwood Canyon, Utah 445; Storage vault **447,** 457
Livingstone, David 646, 648
Llamas **326,** 327
Llao Llao peninsula, Argentina **318-319**
Lobster traps **334-335,** 351, Mar. supplement
Lobsters *see* Spiny lobster
Lodeon, Mr. and Mrs. Paul **132**
Long Lake, N.Y.: General store **630**
Lono (Hawaiian god) 416
López Rega, José **332**
Los Alerces National Park, Argentina 320
Louis XV, King (France) 347, 348
Louis-Jean, Michel 135-136, 147, 148
Louisbourg (1719 fortress), Nova Scotia 344, 347, 348-349, 351; Reconstructed 347, **348-349,** 351
The Loyalists: Americans With a Difference. By Kent Britt. Apr., pp. 510-539
Blacks 512, 534, 535, 536, 538
Descendants **512-513,** 514, 517, **517,** 520-521, 522, **522-523,** 530, 531, **532,** 533, 535, **535-537**
Diversity of people 512, 514, 515, 517, 533, 534, 535, 538
Execution of 521, 538
Exodus from colonies 510, 512, 514, 515, 522, 529, 531, 532, 533, 534, 536, 538
Hardships in colonies 510, 514, 519, 520-521, 530, 538; Confiscation of property 519, 520, 521
Indians 531, 532
Number of 510, 512, 514, 515, 534, 535, 538
Payments and land grants by British 514, 519, 522, 530, 536, 538; Documents **518-519**
Reasons for supporting British 521, 536, 538
Regiments 510, 515, 517, 519, 524, 530, 532-533, 538; Insignia **516, 524;** Uniform **511**
Studies of 515, 517
Luahine, Iolani 413, **424**
Lulu (catamaran tender) 597, 602, **602,** 605, 610, 613, **613, 614**
Lunar calendars (presumed), prehistoric 65-66, **67,** 68, **69,** 73
Lunenburg, Nova Scotia 335, 337, 339, 344, 351
Lunn, John 347, 351

M

MacAskill, Angus 355
McCarry, Charles: ***Nova Scotia, the Magnificent Anchorage.*** Mar., pp. 334-363; ***Utah's Shining Oasis.*** Apr., pp. 440-473
McCready, William F. 411
McCurdy, J. A. D. 361
Mac Entyre, Eduardo **301**
McEvoy, Ken **165**
Machine Sazi: Tabriz, Iran 46
Machu Picchu, Peru **872**
McInnes, Eduardo 315, 317
McInturff, Pat 579, 583, 584
McIntyre, Loren 295, **295;** ***Mystery of the Ancient Nazca Lines.*** May, pp. 716-728; ***Which Way Now for Argentina?*** Mar., pp. 296-333
MacKenzie, A. W. R. 355
McKinley, Mount, Alaska **789**
MacLean, Annie **350**
MacLeish, Kenneth: ***Martinique: Liberté, Egalité, and Uncertainty in the Caribbean.*** Jan., pp. 124-148; ***Western Australia, the Big Country.*** Feb., pp. 150-187
McLeod, Norman 356
McLeod, Lake, Western Australia: Salt pans **170-171**
MacMillan, C. Lamont 357
McTaggart, Sandy and Carol 180
Madden, Robert W., photographer: ***Hawaii, Island of Fire and Flowers.*** Mar., pp. 399-425
Maeser, Karl G. 444
La Maestranza (bullring), Seville, Spain 850, **850,** 852
Magdalena Island, Chile **234-235**
Magellan, Ferdinand 225, 232, 237
Magellan, Strait of 231, 235, 236, 237, 238; Shipwreck **236**
Magis, Robert C.: Painting by **291**
Mailbox, orchid-entwined: Hilo, Hawaii **398**
Maimará, Argentina **326-327**
Maine: ***Sea-swept Coves Beside a Forested Realm.*** Mar. supplement
Makonde tribesmen: Tanzania **502,** artwork **502**
Makuk, Mount, Iraq **378,** 379
Málaga, Spain 843, 844
Malagawatch, Nova Scotia **356-357**
Malarang Park sheep station, Western Australia: Shearing shed **172-173**
Malcolm, John 521
Malecela, John 504-505
Malindidzimu (hill shrine), Rhodesia 641
Mallmann, Carlos 317, 320
Malnutrition: Tanzania 492, 504, 506
Mammoth, woolly: Ice Age **73,** Cro-Magnon images 67, 74
Man, prehistoric: Alaska 777; *see also* Cro-Magnon man
Man of War Cay, Abaco, Bahamas **534-535;** Boatbuilder **535**
Manii, Abbas Ali 41
Manolete (matador) 851, 852
Mansoor, Salim 386
Maps:
Adirondack Park, N.Y. 618-619
Africa: East Africa 681; Southern Africa: Map of changing politics 486
Alaska: *Close-up: U.S.A., Alaska,* June supplement; Land-use plan 738-740
American Revolution battlegrounds 525-528
Andalusia (region), Spain 838
Antarctica: Argentine claim 302
Argentina 302
Bahama Islands-Florida area: Site of spiny lobster migrations 819, Bimini study area 829
Baltimore, Md. 197
British Isles: Route of the Spanish Armada 230
California: 1589 map of Drake's landing 220
Canada: *Close-up: U.S.A., Maine, with the Maritime Provinces of Canada* (New Brunswick, Nova Scotia, Prince Edward Island), Mar. supplement; James Bay Territory 544
Caribbean region: Drake's bases of operations 231; Martinique 128
Central America: Drake's bases of operations 231
Egypt: Suez Canal and region 801
Europe: Ice Age Europe 70-71; Route of the Spanish Armada 230
Hatteras, Cape, N.C.: *Monitor* shipwreck 56
Hawaii (island): Relief map 405
Iran 13
Kurdistan 368
Maine: *Close-up: U.S.A., Maine, with the Maritime Provinces of Canada,* Mar. supplement
Martinique 128
Mato Grosso State, Brazil: Indian reservations 260
Mercury (planet), geological maps of 864, 867
Mexico: Yucatán Peninsula, showing Isla Mujeres 574
Mid-Oceanic Ridge: Project FAMOUS site 588
Nazca Lines, Peru 718
New Brunswick: *Close-up: U.S.A., Maine, with the Maritime Provinces of Canada,* Mar. supplement
New England: Portuguese communities in Massachusetts and Rhode Island 98
New York City: 1776 527-529; 1975 529
Nova Scotia 343; *Close-up: U.S.A., Maine, with the Maritime Provinces of Canada,* Mar. supplement
Persian Gulf-to-U. S. shipping routes compared 801
Prince Edward Island: *Close-up: U.S.A., Maine, with the Maritime Provinces of Canada,* Mar. supplement

Provence (region), France 699
Rhodesia 645
Tanzania 487
Utah: Salt Lake City 444; Wasatch Front 444
Western Australia 160
World: Drake's circumnavigation route 230-231
Mar del Plata, Argentina **312-313,** 315
Marcel le Bihan (tender) 597, **601,** 602
La Marche, France: Ice Age artifact **69**
Marcy, Mount, N.Y. 625, 629, 635
Marcy Dam campsites, N.Y. 635
Margaree River Valley, Nova Scotia **340-341**
Marie-Anne, Georges 140, 143
Marine Mammal Protection Act (1972) 744
Mariner missions: Jupiter-Saturn mission 294
Mariner 9 858
Mariner 10: ***Mariner Unveils Venus and Mercury.*** By Kenneth F. Weaver. June, pp. 858-869
Marit (Norwegian ship): Suez Canal **807,** 810, 811, 815
Marquet, William M. 605
Marriott, Brian **159**
Mars: Canyon system 858
Marseille, France 693, 695, 713; Church, France's oldest 711, 713; Food 708-709, 713; History 707, 712; Landmarks 711; Old Port **712-713;** Population 709
Marshack, Alexander 1, **64;** ***A Bold New Look at Our Past.*** By the Editor. Jan., pp. 62-63; ***Exploring the Mind of Ice Age Man.*** Jan., pp. 64-89
Marshack, Elaine 67
Marshall, Robert 748, 749, 771
Martinique: Liberté, Egalité, and Uncertainty in the Caribbean. By Kenneth MacLeish. Jan., pp. 124-148
Agriculture 132, 134, **138-139,** 147, 148
Arts **142,** 147
Capital *see* Fort de France
Carnaval **144-147**
Cock fights 148
Economy 134, 135, 139, 140, 143, 147
Education 143
Fishing 124, 126-127, 130, **140-141,** 148
Food processing 134
Government; politics 127, 132, 134, 135, 139-140, 143, 147
History 127, 128, 136, 143; Colonization 131-132; Slavery 132, 143, 148
Industry: Construction **135;** Village 143
Language 124, 127, 148
Lifestyles **130-133,** 131, 135, 147-148
Map 128
Population 124, 127, 132, 134; Class structure 132; Origins 127, 132
Tourism 135, 139, **144,** 147
Vegetation 136, 148
Mary, Virgin: Statues **94,** 846
Maryland *see* Baltimore
Maryland Institute for Emergency Medicine, Baltimore, Md. **211**
Mashhad, Iran 46; Shrine **44-45,** 46
Mashhour, Mashhour Ahmed 800
Masjid-e Shah (mosque), Isfahan, Iran 20, 21
Mason, Richard 264
Massachusetts: ***New England's "Little Portugal."*** By O. Louis Mazzatenta. Jan., pp. 90-109
Massachusetts, U.S.S. (battleship) **99**
Matabele *see* Ndebele tribesmen
Mathews, Mr. and Mrs. Ron **176**
Matisse, Henri 711, 714
Mato Grosso State, Brazil: ***Brazil's Kreen-Akarores: Requiem for a Tribe?*** By W. Jesco von Puttkamer. Feb., pp. 254-269; ***Brazil's Txukahameis: Good-bye to the Stone Age.*** Photos by W. Jesco von Puttkamer. Feb., pp. 270-283
The Matopos, Rhodesia 641
Matthews, Dick 102
Matusadona Game Reserve, Rhodesia 649
Mauna Kea (volcano), Hawaii (island) 404, 407, **408-409,** 411, 412
Mauna Kea Beach Hotel, Hawaii (island) 412
Mauna Kea Observatory, Hawaii (island) 411
Mauna Loa (volcano), Hawaii (island) 407, 411, 417
Mauna Ulu (Kilauea vent), Hawaii (island) **400-402,** 425, cover ill.
Mawonda (spirit medium) 658, **659,** 662
May Day (socialist festival), Tanzania **482-483**
Mayflower (ship) 216
Mazzatenta, O. Louis: ***New England's "Little Portugal."*** Jan., pp. 90-109
Mbeya Region, Tanzania 504
Mcharo, T. 488
Mecca (scuttled ship): Salvaged **799,** 806
Medeiros, Humberto Cardinal **104**
Medeiros, John 101
Medeiros, Tony 101
Medicine men: Alaskan Indians 733, 755, 762
Medina Sidonia, Duke of 247, 249
Meirelles, Apoena 256, 258, **259,** 260, 262, 263, 268
Melli Shoe Company, Tehran, Iran **29**
Mello, Herman 95
Meltzer, Davis: Paintings by **588-590, 609, 611**
Melville, Herman 103
Mencken, H. L. 190, 199
Mendoza, Pedro de 314
Mendoza, Argentina 327, 329; Vineyard near **328**
Menzies, Leslie Robert 158
Merced River, Calif.: Yosemite Valley **437**
Mercury (planet): ***Mariner Unveils Venus and Mercury.*** By Kenneth F. Weaver. June, pp. 858-869
Atmosphere 864, 868, 869
Core, iron 863, 864, 868, 869
Density 869
Formation of 863, 868
Magnetic field 868
Maps, first geologic 864, 867
Mariner 10 flyby 858, 864; Diagrams **864, 867**
Orbit 869
Radar observations 867
Rotation 868, 869
Size 858, 867
Surface 858, **859, 862-863,** 864, **865, 866,** 867, 868, **868,** 869; *dorsa* (ridges) 869; Maps 864, 867; *planitiae* (basins) **866,** 869; *rupes* (cliffs) **862-863,** 863, 869; Valleys 869; "weird" terrain **868**
Temperatures 858, 864, 867, 869
Visibility of, from earth **858,** 860
Volcanic activity 858, 863, 868, 869
Merrimack (ironclad) 48, 49, 56, 58, 59; Battle with *Monitor* **60**
Merritt, Dixon 120
Meshgin Shahr, Iran: Teahouse **16**
"Mesopotamia" (region), Argentina 306, 307, 309
Mew, Ken 646, 648
Mexico *see* Mujeres, Isla
Micmac Indians: Oyster farming 362
Mid-Atlantic Ridge: Length 588; Mountains 586-587, **588-590,** 602, 606; Size 587, 588, 602; *see also* Mid-Atlantic Rift, *outlined*
Mid-Atlantic Rift:
I—***Where the Earth Turns Inside Out.*** By J. R. Heirtzler. May, pp. 586-603
II—***Dive Into the Great Rift.*** By Robert D. Ballard. May, pp. 604-615
Age 603
Currents, deep sea 608
Earthquakes 588, 596, 603
First manned probe *see* Project FAMOUS, *outlined*
Fissures 587, 588, **589-595, 598,** 603, **611,** 612-613; Lengths 603; Widths 590, 591, 598, 603, 612
Fracture zones **588, 594,** 600, 602, 603, 615
Lava: Formations 608, 612, "haystacks" **588,** 608, "pillows" **593,** 608, tubes **591-593,** 608; Temperature 591, 608

Magnetism 596, 603
Marine life **591, 593-595, 603,** 605
Plate tectonic theory 588, 596, 602-603, 612-613
Pressure 591, 612
Resources, mineral 600, 603, 612-613
Sea floor: Building of 586, 587, 588, 591, 598, 603; Composition of 602
Sediment 593, 594
Temperature 604, 608, 613
Valley 586, 588, **588-595,** 596, 597, 600, 602-603, 606, 608, **610, 611,** 612-613; Width 602
Vents, ocean-floor 588, 600, 603, 612-613
Mid-Oceanic Ridge system: Length 587
Middle East and Near East 1 *see also* Egypt; Iran; Kurdistan
Midnight Cave, Del Rio, Texas: ***Six Months Alone in a Cave*** (biorhythm research). By Michel Siffre. Mar., pp. 426-435
Migrations: Geese 553, 558; *see also* Spiny lobster
Miller, J. Jefferson 211
Milling Frolic: North River Bridge, Nova Scotia **338-339**
Millinga, N.J. 479, 482
Millington, A.J. 166
Millspaugh, Martin 212
Mime: Avignon, France **701**
Minas Basin, Nova Scotia **354**
Mines (explosives) 794, 806, **808,** 810; Detonation of **809**
Mines; mining: Chromium **667;** Nova Scotia 344, **344,** 362; Utah 454, 456-457, **464, 465;** ***Western Australia, the Big Country.*** By Kenneth MacLeish. Feb., pp. 150-187
Minibike **560**
Minuteman missile 468, 470
Missionaries: Hawaii (1800's) 420; Mormons **457,** 463
Mistral, Frédéric 692, 705
Mitchell, Parren J. 214
Mittens, moose-skin 549, **552**
Mizar, U.S.N.S.: Project FAMOUS 596, 598
Moar, Minnie 549; Daughters **548**
Moccasins, moose-skin 549; Liners **552**
Mohamed, Hoyida 804, 805
Mohammad Reza Pahlavi (Shah of Iran) 5, 6, 7, **9,** 12, 23, 26, 29
Mohawk Indians: American Revolution battle 530; Communion service, gift of Queen Anne (1712) 532, **532;** Land dispute 619; Ontario reservation 532
Mohawk Valley, N.Y. 522; American Revolution battlefield 530-531
Moi, Daniel Arap **478**
Moluccas (islands), Indonesia 231, 240
Mongoose: Hawaii 420
Monitor (Civil War gunboat): ***How We Found the*** **Monitor.** By John G. Newton. Jan., pp. 48-61
Battle with *Merrimack* 48, 49, 51, 58, 59, **60;** Historical significance 49, 51, 58, 60, 61
Blockade duty **55,** 60
Commander 59
Crew **55,** 59
Design 49, 50, 55, 56, 58; Distinctive features 50, 56, 59, **60** *see also* Turret, *below;* Drawing from original plans **51-52**
Dimensions 49, 55
Last voyage: Map 56
Model of **58**
Photo and engravings, contemporary **48, 55, 60**
Sinking **48,** 49, 59-60; Rescue operations 49, 59
Tow ship **48,** 49, 57, 59, 60
Turret, revolving 49, **50, 52-55,** 56, **57**
Monitor expeditions: ***How We Found the*** **Monitor.** By John G. Newton. Jan., pp. 48-61
Equipment used 49, 56, 57, 61; Cameras **50, 57;** Navigation systems **56, 58;** Sonar 49, 57, 61
Finding of the wreck 49, 56, 57, **57,** 60-61; Identification proof 49, 50, 51, 53, 57, 61 *see also* Photomosaics, *below*
Legal protection for wreck 61
Participants 49, 51, 56, 57, 60, 61
Photomosaics **50-54,** 61; Key to **51-52**
Relics recovered 49, **60,** 61
Research vessels *see Alcoa Seaprobe; Eastward*
Search area 49, 57; Map 56
Moniz, Manuel, family **92**
Monkeys: Nazca Line **722-723;** *see also* Baboon, olive
Montejaque, Spain 847, **848-849;** Woman of **832**
Montgaudier, cave of, France: Ice Age artifact 62-63, **62-63,** 68, 70, 82
Monts, Pierre Du Gua, Sieur de 345
Moore, James G. 597, **602,** 604, 605, 606, **607,** 608, 612, 613
Moore, Tony 187
Moors (people): ***Andalusia, the Spirit of Spain.*** By Howard La Fay. June, pp. 833-857
Moose: Butchering of **550,** 562; Crees' use of **550, 551,** 553, 562-563
Moradi, Ali 2, 6, 46
Moravians: Alaska 765
Morgan State College, Baltimore: Center for Urban Affairs 214
Mormons: ***Utah's Shining Oasis.*** By Charles McCarry. Apr., pp. 440-473
Church: Beliefs 445, 447, 448, 457, 459, 461, 465, 472; Buildings **442, 443,** 445, **446-447, 450-451,** 466; Founding of 442, 445, 447; Heads 440, 444, 445, **447;** Membership 446; Missionaries **457,** 463
Education, God-centered 444; Schools founded 444
The family 440, **458-463,** 459-463
Genealogical records **447,** 457, 465
Persecution of (1800's) 440, 442, 445
Public officeholders 442, 459, 472
Recreation, views on 448
Settlements, historical 445 *see also* Utah, settlement of, *below*
Utah, settlement of 440, 444; Desert-to-oasis feat 440, 444, 445; Objective 440, 445; Selecting of site 442, 445, monument commemorating **442,** 445
Utah population, proportion of 442, 445
Moroni (angel) 445; Statue of **446**
Morton Salt Company: Salt Lake plant 456
Moshi, Tanzania 490
Mosques: Córdoba, Spain 839; Iran 20, 21, **44-45,** 46
Mosquito eggs and larvae 389, **390-391;** Enlargement of **391**
Mounier, Bruce 830; photographer: ***Strange March of the Spiny Lobster.*** June, pp. 819-831
Mounier, Bruce, Jr. **830**
Mount McKinley National Park, Alaska 744-745, **788-789**
Mount Tom Price mine, Western Australia 173, **174-175,** 176
Mount Vernon Place, Baltimore, Md. 197; Park 215
Mountain climbing: Andes 295, 329; Casualty 295, 329
Movius, Hallam L., Jr. 66
Mowanjum Mission, near Derby, Western Australia 168
Mozambique 503; Independence, promise of 486; Prime Minister (interim government) 504, 670; Rebellion 478, 483, 504; Rhodesian guerrillas, sanctuary for 643
Msipa, Cephas 666; Family **671**
Mtonzima Gwebu, Chief (Ndebele tribe) **651;** Home **650-651**
Muhammad ibn al-Ahmar, King (Granada) 842
Muhammed Shali 379
Mujeres, Isla, Mexico: ***Into the Lairs of "Sleeping" Sharks.*** By Eugenie Clark. Apr., pp. 570-584
Mukumbura, Rhodesia **652-653,** 654, 658, 662
Mule trains: Panama treasure road 224, 225, **226,** ambushed by Drake (1573) 225, **226**
Mules: Kurdistan **295, 366-367,** 369, 378
Muller, Steven 215

Münch, Guido **292**
Murdoch, John 547
Murillo, Bartolomé Esteban 849, 851
Murray, Bruce C. **860**, 868, 869
Murray, Jock 186
Musical instruments: Contrabass **448**; Drums **441**; Fifes **441**; Guitars 833, 839, **842**; Organ **451**; Ukuleles **404**
Muzorewa, Abel T. **657**, 668, 670
My Backyard, the Adirondacks. By Anne LaBastille. May, pp. 616-639
Mystery of the Ancient Nazca Lines. Picture story by Loren McIntyre. May, pp. 716-728
Mystery Shrouds the Biggest Planet (Jupiter). By Kenneth F. Weaver. Feb., pp. 285-294

N

Naalehu, Hawaii (island) 416, 417
Nabesna Glacier, Alaska **786-787**
Nahuel Huapí, Lake, and national park, Argentina 317, **318-319**
Naish, George 246
Nambikuaras (Indians): Brazil 268
Napoleon I, Emperor (France) 148, 703
Napoleonic Wars 128, 703
Nartuby River, France **709**; Protection of a section of 705
Nasser, Gamal Abdel 797, 802
National Academy of Sciences: Project FAMOUS 596
National Aeronautics and Space Administration (NASA): Biorhythm research 428, 435; *see also* Space flights and research
National Assembly, Tehran, Iran: Carpet for 25
National Endowment for the Humanities 517
National forests: Alaska 740, 766, proposed 740, 744, 745
National Foundation for the Indian (Brazil): ***Brazil's Kreen-Akarores: Requiem for a Tribe?*** By W. Jesco von Puttkamer. Feb., pp. 254-269; ***Brazil's Txukahameis: Good-bye to the Stone Age.*** Photos by W. Jesco von Puttkamer. Feb., pp. 270-283
NATIONAL GEOGRAPHIC:
Articles: Articles on Africa since 1960 585; First to publish some of the findings of Project FAMOUS 585; Nathaniel T. Kenney's article on Africa (1960) 585; Loren McIntyre's article on Incas (1973) 1; Oil articles (1904-1974) 1; Primitive peoples, articles dealing with 729; Rhodesia article, accusations concerning 585; Alan Villiers' articles (1931-1975) 149
Editor: Editorials 1, 149, 295, 439, 585, 729; Introductions to articles 62-63, 254; Notes 618
Editor-in-chief: Melville Bell Grosvenor 358
Photographers 439; Emory Kristof 492
Photographs: First color photos showing fully distended pelican's pouch underwater **116, 117**
Writer-photographers 295
Writers 439
National Geographic Society:
Books *see* Books, NGS
Cartographic researcher Dorothy Nicholson helped locate *Monitor*'s grave 60
Employees: Archives 295
Grants: Anthropological studies: Africa 489; Botanical studies: Tierra del Fuego 322; Ice Age man research: Europe 63; *Monitor* expeditions 49, 51, 61; Nazca Line studies: Peru 716, 718; Shark studies: Yucatán waters 575; Spiny lobster study: Bimini Islands 819
National Oceanic and Atmospheric Administration (NOAA) 61; Program funded: Project FAMOUS 597
National Park Service: American Revolution drama **515**; Ranger in British uniform **511**
National parks, U. S.: ***Alaska, Rising Northern Star.*** By Joseph Judge. June, pp. 730-767; ***Preserving America's Last Great Wilderness*** (Alaska). Text by David Jeffery. June, pp. 769-791; ***Your National Geographic Guide . . . (The New America's Wonderlands, Our National Parks).*** Mar., pp. 436-438
National Reenactment Society 532-533
National Science Foundation: Program funded: Project FAMOUS 597; Program supported: *Monitor* expedition 49; Study grant: Baboons 674
Naturalization ceremony 109, **109**
Nauvoo, Ill. 445
Naval Research Laboratory: Project FAMOUS 596, 598, **599**
Navigation, underwater: Project FAMOUS 605-606, diagram **610**
Nazca Lines, Peru: ***Mystery of the Ancient Nazca Lines.*** Picture story by Loren McIntyre. May, pp. 716-728
Nazcas (people) 716; Crop, first domesticated 726; Deities 726; Fertility symbols 726, **727**; Headhunting 724, 726, **726**; Pottery 716, **724, 726-727**; Warrior-priests 726, **726**
Ndebele (Matabele) tribesmen: Rhodesia 641, 654, chief **651**, king (1890) 662
Ndubuva, Michael 648
Nebbia, Thomas, photographer: ***Rhodesia, a House Divided.*** May, pp. 641-671
Nebulae: Orion Nebula **873**
Needham, David 597, **600**
Negroes: American Revolution 512, 538; Slaves 534, 535, 536, 538
Nene (goose): Preservation of 411
Neto, Frank 100
Neto, Maria Louisa **100**
New Bedford, Mass.: Portuguese-Americans **104**; Whaling museum 103, 744
New Brunswick (province), Canada: Capital (Fredericton) 515, 517; Farm **522-523**; Loyalist settlers 514-515, 517, **520**, 522; Premier **517**; ***Sea-swept Coves Beside a Forested Realm.*** Mar. supplement
New England: ***New England's "Little Portugal."*** By O. Louis Mazzatenta. Jan., pp. 90-109; *see also* Maine
New-Gate Prison, East Granby, Conn. 533-534; Guardhouse **539**
New Jersey: Loyalists **520**, 533
New Life for the Troubled Suez Canal. By William Graves. June, pp. 792-817
New Ross, Nova Scotia 352
New York: American Revolution: Battlefield 530-531, Loyalists 514, 519, 521, 522, 529, 530, 533, 535, troops 519, 530, 531, 532; *see also* Adirondack Park
New York, Baronetage of 632
New York, N.Y.: American Revolution 529, **529**, reenactment of battle **530-531**; Loyalists 521, 529, 534, Declaration of Dependence (1776) **510**; Map (1776) **527-529**
Newton, John G. **56**; ***How We Found the* Monitor.** Jan., pp. 48-61
Ngono River dam, Tanzania 504
Ngorongoro Crater, Tanzania 488
Niaux, cave of, France: Ice Age art 67, 70, **76-77**, 79-80, 83, cover ill.
Nice, France: Beach 693, **711**
Nicholson, Dorothy A. 60
Nickel: Western Australia 158, 161
Ninety Six, S.C.: American Revolution battle site 533, diorama **524**
Nitriles 291
Niulii, Hawaii (island): Coastline **422**
Nkomo, Joshua **656**
Nobel Prizes: Chemistry: 1970 winner 303, **318**; Peace Prize: Candidates 256
Nomads: Iran **34, 36-39**, 40, 41
Nombre de Dios, Panama 224-225, 253
Nonimmunity of primitive peoples 254, 264, 268, 280

XUM

Nor'-West Whaling Company: Western Australia 179
Norfolk, Va.: Civil War 58-59
Le Noroit (tender) 597, **601**, 602
North America: Portuguese-exploration question 90, 98, 105, 339, clues **98**, 105
North Carolina: Loyalists 524, 535, troops 524
North River Bridge, Nova Scotia: Milling Frolic **338-339**
North Slope, Alaska 734, 735-737, 738, 744, **746-751**
North Slope Borough, Alaska 736, 737, 744
Northern lights: Alaska **732-733**, 762, June supplement
Northville-Lake Placid Trail, N.Y. 634-635, **638-639**; Map 619
Nottaway River, Canada 561, **564**, 565, **568-569**
Nova Albion (land claimed by Drake) 216, 221, 240; Map **220**; Plaque **221**
Nova Scotia, Canada:
Loyalist settlers 510, 512, 514, 515, 533, blacks 536, 538
Nova Scotia, the Magnificent Anchorage. By Charles McCarry. Mar., pp. 334-363
Sea-swept Coves Beside a Forested Realm. Mar. supplement (334A)
Agriculture 352, **352-353**, 355
Aquiculture 362
Boats and boating **337**, 339, 351
Capital *see* Halifax
Climate 335, 337, 339, 355, 361, 362
Ethnic makeup 344, 345, 347, 355-356
Fishing 339, 344, 351-352, **363**; Lobster traps **334-335**
Government 353, 362; Minister of fisheries 352; Premier 338
Harbors **342**, 345, **346**, 353
History 339, 344, 355, 356, 357, 358, 359, 361, 362; Colonial 344, 345, 347, 348-349, 352; Discoverers 338-339, 345
Housing 356
Income, per-capita 352
Labor 349, 350, 352, 353, 355
Languages 345, 351
Map 343
Mines and mining 344, **344**, 362: Miners **344**, **345**
Museums 344, 358, **358-359**, 361
Population 337, 353, 356; Origins 344, 355
Schools: College 355-356; One-room **350**
Shipping 338; Port **346**; Supertanker **342-343**, 353, 357
Tourism 344, 349, 351, 353, 356-357
Wildlife 340, 341
Nuestra Señora de la Concepción (Spanish galleon) 237-238
Nuiqsut, Alaska: Aerial view **748-749**; People **750**, **751**
Nulato, Alaska: Cemetery **752-753**; People **754-757**
Nunamiut (Eskimos) 748
Nunapitchuk, Alaska: Eskimos **767**
Nyerere, Julius K. 477, **478**, 478-479, 482, 486, 490-491, 503, 505

O

Oahu (island), Hawaii 399, 425
Occitania (Land of Oc), France 707
Occitania Movement: Provence, France 705, 707
Ocean Digger (floating rig) 173
Oceanography: ***Project FAMOUS—Man's First Voyages Down to the Mid-Atlantic Ridge.*** May, pp. 586-615: I—***Where the Earth Turns Inside Out.*** By J. R. Heirtzler. pp. 586-603; II—***Dive Into the Great Rift.*** By Robert D. Ballard. pp. 604-615
Odell, Dr. and Mrs. Jonathan **520**
Office of Naval Research: Project FAMOUS 597
Oil: Egypt 800, 801; GEOGRAPHIC articles (1904-1974) 1; ***Iran: Desert Miracle.*** By William Graves. Jan., pp. 2-47; Iraq 367, 386; Middle East wealth 1; Western Australia 158, 160, 173; *see also* Alaska
Oil industry: Marseille refineries 712; Nova Scotia refineries **342-343**, 353, 355
Oil pipelines: Egypt's proposed 800, 801; Trans-Alaska 734, 735, 738, 743, 745, 758, 759, 762, pipeline corridor: Map 739-740, road **741-743**, 753, 758, valve **738**
Olavarría, Argentina 321; Ranches near **310**, 315
Olduvai Gorge, Tanzania 488, **488-489**
Olive baboon *(Papio anubis) see* Baboon, olive
Oliver, Andrew 517, 520-521
Oliver, Andrew (1706-1774) 517, 520-521
Oliver, Ian 161
Ona Indians 322
Onion Portage, Alaska 779
Ontario (province), Canada: Loyalist descendants 520, 522, 532; Mohawk Indian reserve 532
Ontario Mine, Utah 456
Open-pit mines: Oquirrah Mountains, Utah **464**; Western Australia 173, **174-175**, 176
Ord River irrigation project: Western Australia 161, 166
Organization of African Unity 653; Member states: Map of 486
Oriskany Battlefield, N.Y. 530-531
Orlinsky, Walter S. **193**
Oskolkoff, Larry M. **762**
Osman, Osman Ahmed **796**, 816
Ottoman Turks: Kurdistan 368
Our Last Great Wilderness (Alaska). Text by David Jeffery. June, pp. 769-791
Ovens, Archie **172**
Overacre, Earl and Thelma 634-635
Oxubi (Gallic people) 695
Oyster cultivation: Nova Scotia 362

P

Pacheco, Fred **95**
Paint Hills, Canada: Election **560-561**
Paintings: Composites: Alaskan wildlife June supplement, Atlantic fishes Mar. supplement; ***Exploring the Mind of Ice Age Man.*** By Alexander Marshack. Jan., pp. 64-89
Palley, Ahrn 670
Pampa (region), Argentina 296, 297, 302, 311, 314, 315, 321, 327
Panama **227**, **250-251**; Drake's raids 224-225, **226**, 227, 231, 242, 250, 253
Pangaea (primordial super-continent) 596
Panpipe, Nazcan **726**
Paraburdoo, Western Australia: Iron mine 173, 176, 177
Paracas culture: Peru 724, hill figure **724**
Paraná (river), Argentina 296, **306-307**, 307, 309; Bridge **307**
Parengeta (Shona spirit) 658, 662
La Parfumerie Fragonard: Provence, France 704, "nose" 704, **705**
Park City, Utah: Mines 454, 456-457, **465**; Ski resorts **454**, 456
Parker, Donna **213**
Parker Ranch, Hawaii (island) 412
Parsell, Jack **627**
Partridge, Bill 628
Patagonia (region), Argentina 297, 317, **318-321**, 320-321, 327
Paterlini, Cesar Roberto 309
Patkotek, Billy 744
Pauahi Crater, Kilauea (volcano), Hawaii (island) **400-401**
Paulvé, Marcel 705, 708, **709**
Peabody Conservatory of Music, Baltimore, Md. 197; Composer 199
Peabody Museum, Harvard University: Ice Age man research 62
Peace programs, international: ***New Life for the Troubled Suez Canal.*** By William Graves. June, pp. 792-817
Pearce, Jan **219**

Pearl divers: Western Australia 168, 170-171
Pech-Merle, cave of, France: Ice Age art 67, 70, 74-76, **75**
Peck, Stanley 182
Pedro Domecq winery, Jerez, Spain 854
Peggy's Cove, Nova Scotia **334-335**
Pele (goddess of volcanoes): Hawaii 399, 413, 425
Pelée, Mount (volcano), Martinique 126, 128, 135
Pelican (ship) *see Golden Hind*
Pelicans: White **470-471;** *see also* Brown pelican
Pemba (island), Indian Ocean 500, 501, 503
Peniche, Portugal: Fishermen **242-243**
Perfume industry: Grasse, France 704, **705,** flower supply 704, **704**
Perkins, Red 623
Perón, Eva 296, **297,** 309, **313,** 329, 333
Perón, Juan Domingo 296, **297,** 303, 309, **313;** Death 296, 312, 333; History 296, 309; Industrialization attempts 312, 323; Return from exile 296, 312, 323, 329, 333
Perón, María Estela Martínez de ("Isabel") 296, **297,** 309, 329, **332,** 333
Peronists 296, 307, 321, 329, 333; Anti-Peronists **300,** 303, 309, 321, 329, 333
Persepolis (ruins), Iran **4-5,** 6, 35, 40
Persian carpets **17,** 21; Cost 17, 21
Persian Gulf: Oil transport 23, 35, route map 801
Perth, Australia **156-157,** 182, 187; Ballet **169;** Industry on outskirts of 182; Population 157, 168
Peru 224, 228; Silver export **229;** *see also* Nazca Lines
Pesek, Ludek: Paintings by **288-290, 862-863**
Pesh Mergas (guerrillas): ***The Kurds of Iraq: "We Who Face Death."*** By LeRoy Woodson, Jr. Mar., pp. 364-387
Pestana, Delfina **106**
Peters, Thomas 538
Peterson, Donald 407, 410, 411
Petroglyph: Hawaii (island) **425**
Pettine, Raymond J. 109
Peyraud, M. and Mme Lucien 701
Philip II, King (Spain) 241, 242, 245, 246
Phoenicians: Andalusia, Spain 838, 839
Photography: Infrared 63, 67, 74, 75; Ultraviolet 63, 67, 75, **76-77,** cover ill., **860, 861,** 863
Photography system, underwater: LIBEC (LIght BEhind camera) **596,** 597, diagram of **598,** photos by **598, 599;** Photographing the *Monitor* **52, 57**
Phyllosomas (spiny lobster larvae) 824, **825**
Picasso, Pablo 714
Pigeon towers: Isfahan, Iran **32-33**
Pilbara (region), Western Australia **155,** 161, 171, 173, 177; Iron ore 161, 171, 173
Pilots, Suez Canal 811-812; Salaries 811
Pimlico Race Course, Baltimore, Md. 203, **204-205**
Pioneer 10 858; ***Mystery Shrouds the Biggest Planet*** (Jupiter). By Kenneth F. Weaver. Feb., pp. 285-294
Pioneer 11 285, 286, 294; Path plotted **286**
Pishderi, Abdulla 371
Planets: ***Mariner Unveils Venus and Mercury.*** By Kenneth F. Weaver. June, pp. 858-869; *see also* Jupiter
Plants: Ice Age symbolism **62,** 63, **63,** 70, 73, 80, **81,** 82, **83,** 89; *see also* Flowers; Trees
Plata, Río de la, Argentina-Uruguay 297, 299, 314, 315, 317
Plate tectonics *see* Continental drift
Pluto, Mount, Mid-Atlantic Ridge **589,** 602, 606, 608
Plymouth Hoe, England: Bowlers **247;** Drake legend 246, 247
Poaching: African wildlife 492
Poe, Edgar Allan 190,199
Pohakuloa, Hawaii (island): Nene preservation 411
Poi 399, 405; One-finger and two-finger poi 413
Point Reyes, Calif. 216, 223
Point Tupper, Nova Scotia: Refinery and supertanker terminal **342-343,** 353, 355
Polidori, Jacques 698, 700
Polish Sausage Derby: Baltimore, Md. **200-201**
Pollution: Costa del Sol, Spain 837, 844; Factor in decline of brown pelican 111, 113, 122, 123; Iran 20, 29, **29**
Pollution control: Nartuby River, Provence, France 705
Polygamy: Mormons 445, 461
Ponies: Baltimore hucksters' **198,** 199
Ponnamperuma, Cyril 291, 292, **292**
Ponta Delgada, Azores: Project FAMOUS base 596, **601,** 602
Popes, 14th-century: Avignon, France 692, 701
Poroi village, Xingu National Park, Brazil: ***Brazil's Txukahameis: Good-bye to the Stone Age.*** Photos by W. Jesco von Puttkamer. Feb., pp. 270-283
Port Hedland, Western Australia: Population growth 171
Port Roseway, Nova Scotia *see* Shelburne
Port Royal (colony), Nova Scotia 345
Port Royal National Historic Park, Nova Scotia 347
Port Said, Egypt 801, 804-805, **804-805,** 816; Ceremonial opening of Suez Canal (1869) **803**
Port St. Julian, Argentina: Mutiny trials 232
Port Taufiq, Egypt 797, 815; War damage **794-795,** 798
Portage Creek, Nova Scotia: Oyster cultivation 362
Porter, Arthur T. **536**
Portobello, Panama **250-251,** 253
Portugal: Drake's exploits 243, 246; Indians, mistreatment of (16th century) 256; Mozambique rebellion 478, 483, 486, 504; Whaling crews, 19th-century 98, 100, 103
Portuguese-American communities: ***New England's "Little Portugal."*** By O. Louis Mazzatenta. Jan., pp. 90-109
Ethnic conflicts 95, 100
Family ties 92-93, 105
Festivals; celebrations **90-91,** 93, **94,** 95, **95**
Foods, traditional 95, 98, 103
Immigration rate of Portuguese to America 90, 98; Reasons for immigrating 90, 92, 93, 95, 98
Language barriers 90, 93, 106; Bilingual situations 92, 101; Cape Verdean dialect 93; English, learning of 92, 101, 109
Locations *see* Bristol, R.I.; Fall River, Mass.; New Bedford, Mass.; *and* Map, *below*
Map of 98
Naturalization ceremony 109, **109**
New arrivals 90, **92,** 92-93, **93,** 101
Occupations 92, 95, 96, **97,** 100, **100,** 101, **102,** 103, **103,** 104, 105, 106; Cardinal **104;** Politicians **95, 104**
Old World-New World comparisons 92, 95
Population 90
Schools, special 92, 101, 109
Traditions; culture preserved **90-91,** 93, 95, **95,** 96, 98, 101, 103 *see also* Foods, *above*
Unemployment 101
Portuguese-exploration question: North America 90, 99, 105, 339, clues to **98,** 105
Potosí, Bolivia 224, **228-229**
Potter, Seagoe 521
Pottery: Nazca culture 724, **724, 726-727;** Pitcher, turning of **870**
Powell, Ted 457
Preakness Stakes (horse race) 203, 204
Preserving America's Last Great Wilderness (Alaska). Text by David Jeffery. June, pp. 769-791
Price, Tom 174
Primates *see* Baboon, olive

XUM

Primitive peoples: Confrontation with civilization 729 *see also* Kreen-Akarores; Txukahameis
"primordial soup" 290, 292; Reproduced in lab 291
Prince David Kawananakoa Canoe Club, Hawaii: Members **418-419**
Prince Edward Island, Canada: ***Sea-swept Coves Beside a Forested Realm.*** Mar. supplement
Prince Inlet, Nova Scotia **337**
"Project Cheesebox" (*Monitor* research): U. S. Naval Academy **58**
Project FAMOUS (French-American Mid-Ocean Undersea Study):
Project FAMOUS—Man's First Voyages Down to the Mid-Atlantic Ridge. May, pp. 586-615
I—***Where the Earth Turns Inside Out.*** By J. R. Heirtzler. pp. 586-603
II—***Dive Into the Great Rift.*** By Robert D. Ballard. pp. 604-615
Airborne research 588, 596
Dives, number of 588, 589, 590, 602, 615
Echo soundings 588, 596, 605; Drawing based on **600;** Sonar, side-scan 588, 596
Gravity survey 597
Location 587, 588, 596, 600
Magnetic studies 596, 597, 603
Mapping, bathymetric 587, 588, 597, 605
Photographs **591-595;** LIBEC, taken by **598, 599,** number of 597; Number of 602
Rock and sediment samples collected **591,** 597, 602, **602, 603,** 608, 612
Seismic studies 597
Ships: Number of 587; *see also Glomar Challenger; Knorr,* R.V.; *Lulu; Marcel le Bihan; Mizar,* U.S.N.S.; *Le Noroit; and* Submersibles, *below*
Sponsors 597
Submersibles 588, 596, 597, 603, 615 *see also Alvin,* outlined; *Archimède; Cyana*
Support teams 587, 588, 591, 596-597, 598, 600, 602, 603, 604, 605, 613, 615
Promontory Summit, Utah: Railroads, meeting of (1869) 473, ceremony commemorating **466**
Prospect, Nova Scotia **360-361**
Protein source: Sardines *(dagaas)* 504, 506
Provençal (language) 692, 693, 695, 698, 705, 707
Provence, Canal de, France 708
Provence (region), France: ***Provence, Empire of the Sun.*** By William Davenport. May, pp. 692-715
Artists 711, 713-715
Boundaries 692
Climate 697
Craftsmanship 698, 700, 715
Cuisine 695, 698, **700,** 708-709, 713
Energy production 708; Oil 712
Environmental protection 708, 709; Water pollution control 705
History 692, 705; Roman 693, 695, 700
Individualism, adamant 698, 700, 701, 704, 713, 715
Language 692, 693, 695, 698; Revival movement 705, 707
Map 699
Pastoral life 695, 696, 704, **704,** 707, **715**
Perfume industry 704, **705;** Flower supply 704, **704**
Resorts 693, 709, **710-711**
Sectionalism 705, 707, 708
Tourism 709; Resistance to 707, 708
Wine-tasting society **694, 695,** 700-701
Wines 700, 701, 715; Vineyards 701, **714-715**
see also Marseille
Provencher, Maurice 557
Providence, R.I.: Naturalization ceremony 109, **109**
Providence Pile Fabric Corporation, Fall River, Mass. 101
Provincetown, Mass.: Fishermen **102,** 105; Pilgrims, tower commemorating 105
Provo, Utah: Energy research 468; University 444
Prudhoe Bay, Alaska: Oil field 734, 738, workers **746-747**
Puberty rites: Txukahamei Indians 278
Public Health Service: Alaska 750
Pugevičius, Casimir 205, 208
Purkis, Frank 355
Puttkamer, W. Jesco von: ***Brazil's Kreen-Akarores: Requiem for a Tribe?*** Feb., pp. 254-269; photographer: ***Brazil's Txukahameis: Good-bye to the Stone Age.*** Feb., pp. 270-283
Pyrethrum plantation: Tanzania 504

Q

Qalat Dizah, Iraq 369, 371
Qashqai (nomadic tribe): Iran **34, 38-39,** 40
Quebec (province), Canada: ***The Changing World of Canada's Crees.*** By Fred Ward (Black Star). Apr., pp. 541-569; Land grants to Loyalist refugees **518-519**
Queen Elizabeth's Favorite Sea Dog, Sir Francis Drake. By Alan Villiers. Feb., pp. 216-253
Queffélec, Corentin 431
Quinlan, Mrs. Irving 510

R

REM (rapid eye movement): Sleep stage 429
Rabbit Proof Fences, Government: Western Australia 181
Raein, Parviz 7
Railroads: Union Pacific-Central Pacific, meeting of (1869) 473, ceremony commemorating **466**
Rain forest: Alaska 766
Ranches; ranchland: Argentina **310-311,** 315, **316-317,** 317, 320, 321, 322, **324-325;** Hawaii (island) 411-412, **414-415,** 423, 425; Utah 473, ***The Family: A Mormon Shrine.*** Apr., pp. 459-463; *see also* Western Australia, for cattle and sheep stations
Randall, Willard 533, 534
Raniyah-Betwatah front, Iraq 366, 379
Ransom, Timothy 674; photographer: ***Life With the "Pumphouse Gang": New Insights Into Baboon Behavior.*** May, pp. 672-691
"The Raree Show" (drama) **515**
Rasmuson, Elmer 759
Rasool, Ichtiaque 292
Rastenis, Nadas 208
Rau, Douglas **58**
Raymond, Joe and Betsy 199
Rázquin, Bernardo 329
Reconstruction: ***New Life for the Troubled Suez Canal.*** By William Graves. June, pp. 792-817
Redding, David: Skeleton of **538**
Reed, Jake **212-213**
Reef shark *(Carcharhinus springeri) see* Requiem sharks
Reeser, Donald W. 420
Refugees: Kurds 367, 368, 369, 378, 382, 384, **387,** cave dwellings **370,** 378; Suez Canal cities 793, 800, 816, returning of refugees 800, 804, 805, 815, **817;** *see also* Loyalists
Regan, Gerald A. 338, 353
Régusse, France **692-693,** 695, 707
Reiche, Maria **718, 719, 722, 724;** ***Mystery of the Ancient Nazca Lines.*** Picture story by Loren McIntyre. May, pp. 716-728
Religious ceremonies and processions: Feast of Santo Cristo, Fall River, Mass. 93, 95; Holy Week: Andalusia 845-846, *nazarenos* 846, **846**
Religious persecution of Mormons 440, 442, 445
Renard, Vincent **600**
Reptiles: Anaconda **272-273;** Turtles, land **267, 276-277**

Requiem sharks: *Carcharhinus springeri*: ***Into the Lairs of "Sleeping" Sharks.*** By Eugenie Clark. Apr., pp. 570-584
Anatomy: Ampullae of Lorenzini 571, **579,** 583; Gill openings **575,** 579; Mouth **574, 575, 579;** Nictitating membrane **578;** Teeth 574, **579,** 584; Vertebrae 584
Behavior 571, 573, 574, 578-580, 583
Learning capabilities 583
Navigational ability 571, 578
Parasites **575,** 579, 583
Respiration 573, 577, 578, 583
Research *see* Expeditions and research (listing)
Research vessels: ***How We Found the* Monitor.** By John G. Newton. Jan., pp. 48-61; *see also* Project FAMOUS
Resio, Michael 583
Revere, Paul 871
Reza Pahlavi (Crown Prince of Iran) **12**
Reza, Imam 45, 46
Rhode Island: ***New England's "Little Portugal."*** By O. Louis Mazzatenta. Jan., pp. 90-109
Rhode Island, U.S.S. (side-wheeler) **48,** 49, 57, 58, 59, 60
Rhodes, Cecil John 662; Burial place 641; Scholarship fund 649; Statue of **648**
Rhodes, Frank 641
Rhodesia: Political unrest 585, guerrillas 486, 585; ***Rhodesia, a House Divided.*** By Allan C. Fisher, Jr. May, pp. 641-671
Agriculture 666; Crops 645, **663-665,** 665, 666; Irrigation canals **664;** Productivity 662, 665
Army **642-643,** 646, 654, **655**
Blacks: Complaints and demands 641, 646, 648, 658, 662, 666, 668, 670; Leaders 641, 643, 656, **656, 657,** 668, 670, **671**
Capital (Salisbury) **640,** 643, 645, 646, **649,** 668
Climate 645
Coloured 646, 648
Détente, efforts toward 641, 656, 668, 670; Viewpoints on 648, 657, 668, 670
Economy 642, 643, 645, 646, 662, 665, 666, 668
Exports 662, 666
Facts and figures 645
Flag **645**
Government 641-642, 650-651, 652, 670; Parliament 641-642, 646, 651, 668, 670; Prime Minister 641, **656,** 670, official residence **656**
Guerrilla warfare 641, 642-643, 649, 652-654, 662; Casualties 643, 652, 653; Supporters 652-653; Violence 652, 653, 654, kidnappings 642-643, 652, 654
History 641, 642, 645, 648, 658, 662
Hydroelectric power 649
Land ownership 646, 662, 665, 668; Map 645
Map 645
Minerals 645, 666; Miner **667**
Population 641, 645, 662
"protected villages" 652, **652-653,** 658, 662
Religion 641, 645; Ancestor worship 641, 658, 660, 661, 662; Christianity 642, 652, 653-654, 656, 668
Schools and colleges 646, 648, 665, 668; Nongovernment 642, 653-654, 668; Segregation 646; Students **642-643, 649**
Segregation 646, 668 *see also* Land ownership, *above*
Tourists 643, 646
United Nations sanctions against 642, 645, 662, 666, 668
Whites 641, 645, 653-654; First settlers 648, 662; Viewpoints 648, 657, 668, 670
Wildlife 645, 649, **660-661**
Rhodesian African Rifles (army unit) 654; Machine gunner **655**
Richardson, John **339**
Richmondtown, Staten Island, N.Y.: American Revolution battle reenactment **530-531**
Risebrough, Robert W. 123
Rivers, Joaquim **102**
Riviera, French *see* Côte d'Azur
Roanoke Island, N.C.: English settlements 246
Robinson, Douglas C. **395**
Rockefeller, David 187
Rockefeller, Nelson A. 618
Rocket motors, building of 468, 470
Rocky Mountains, Canada-U. S. 873-874
Roddy, Wes 168
Rodeoing (sport): Clyde family 463, 472, neighborhood rodeo **472, 473**
Rodrigues, Adelino **107**
Rodríguez, Miguel 839, **842**
Roebuck Bay, Western Australia: Pearl diving 168, 170-171
Rogers, Lance 171
Rogers, Martin, photographer: ***Baltimore: The Hidden City.*** Feb., pp. 188-215
Roman aqueduct (Pont du Gard), Provence 692, **699**
Roman emperors: Busts **188-189**
Roman Empire: Iberian Peninsula 838, 839; Provence, France 692, 693, 698, 699, map 699
Romanelli Cave, Italy: Ice Age images **86,** 86-87, **87**
Romero, Julio 309
Ronda, Spain: Holy Week 845-846
Rosario, Argentina 309, 314
Rose-Rosette, Dr. 148
Rosenfeld, Frank **200-201**
Ross Farm, Nova Scotia: Plowing contest **352-353**
Rouffignac, cave of, France 67, 70; Ice Age markings **64-65,** 87-88
Rousselot, Juan Carlos 307
Rousselot, Ricardo 307
Row houses: Baltimore, Md. 189, **190-191, 206-207,** 208, 212
Rud-e Dez (river), Iran **24,** 25; Dam **24,** 25, 31
Ruffin, Yves 708, 709, 713
Rufiji (river), Tanzania: Flooding **506-507**
Rugambwa, Laurean Cardinal 503
Rupert House (village), Canada: ***The Changing World of Canada's Crees.*** By Fred Ward (Black Star). Apr., pp. 541-569
Rupert River, Canada **548-549,** 553, 561
Ruth, Babe 190
Ruud, Tomm 465

S

Sabi-Limpopo Authority: Rhodesia 665, 666
el-Sadat, Anwar 797, **810**
Sadomba, Ronnie 648, 658
saeta (arrow of song) 845, 846
Sailing vessels: ***Sir Francis Drake.*** By Alan Villiers. Feb., pp. 216-253
St. Albert's Mission, Rhodesia: Schoolchildren **642-643,** kidnapped by guerrillas 642-643, 652, 653-654
St. Anns, Nova Scotia: Gaelic College 355-356; Scottish folk dancing **347**
St. Augustine, Fla.: Castillo de San Marcos **511;** Drake's capture of 245, 246
St. John, Chandler 452, 456
Saint John, New Brunswick: Founding 515; Old Loyalist Burial Ground **516**
St. John River, New Brunswick **522-523;** Valley 515
St. Pierre, Martinique 128, 135, 136
St. Tropez, France 693; Bar **712;** Beach **710,** 715
St. Victor, Basilica of, Marseille, France 711, 713
Ste. Anne, Martinique 147; Home **132**
Sajjadi, Mohumad 35
Salamanders **395**
Saleh, Kaivan **14**
Salernes, France: Tile factory 698
Salisbury, Rhodesia **640,** 643; Desegregation 646, exceptions 646, 668; Housing, segregated 668; Mayor 668, 670; Population 645; Sports meet **649**
Salmon River, Nova Scotia: Tidal bore **342**
Salt Lake City, Utah: ***Utah's Shining Oasis.*** By Charles McCarry. Apr., pp. 440-473

Aerial view **442-443**
Ballet **448,** 465, 466
Buildings, notable **442-443,** 445, **446-447, 450-451**
City plan 445; Street-numbering system 445
Map 444
Population 440
Symphony orchestra **448,** 466-467
University 467
Salt Palace, Salt Lake City, Utah **442**
Salt production: Utah **453,** 456; Western Australia **170-171**
Salvage: ***New Life for the Troubled Suez Canal.*** By William Graves. June, pp. 792-817
San Carlos de Bariloche, Argentina 317
San Francisco Bay, Calif. 216, **220,** 223
San Jacinto ranch, Olavarría, Argentina: Gauchos **310**
San Juan de Ulúa, Mexico: English and Spanish skirmish (1628) 224, 231
Sánchez Roldán, Francisco 843
Sand dunes: Alaska **778-779;** Western Australia **154-155**
Santo Cristo, Feast of: Fall River, Mass. 93, 95
Santo Domingo, Dominican Republic: Drake's assault 242
São Felipe (Spanish treasure ship) 246
Saturn: Pioneer 11 flyby 286, 294
Saurusaitis, Zita 205
Savory, Allan **657,** 670
Sawyer, Alan 725, 726
Scarasson, France: Biorhythm experiment 428, 435
Schaefer, Carolyn **631**
Schenck, Andrew **203**
Scherschel, Joseph J., photographer: ***Andalusia, the Spirit of Spain.*** June, pp. 833-857
Schmidt, Benno 187
Schreiber, Ralph W.: ***Bad Days for the Brown Pelican.*** Jan., pp. 111-123
Sculpture: African sculpture **502, 666;** Ebony wood **502;** "Energy" **196;** Ice Age 67, 68, **68;** Josephine (empress) **124;** Mormon monument **442,** 445; Pre-Columbian **301;** Roman emperors **188-189;** Soapstone **666**
Sea cucumber **822,** 823
Sea-Swept Coves Beside a Forested Realm (Maine and Canada). Mar. supplement
Seals: Bearded seal, carcass of **774;** Elephant seal **322-323;** Harbor seals **784-785;** Ice Age **73,** Cro-Magnon engraving **62-63,** 63, 68, 70
Seamountain-Hawaii Ranch, Hawaii (island) 423
Seaprobe (research vessel) *see* *Alcoa Seaprobe*
Second Peninsula, Nova Scotia 335; Boatyard **336**
Seddigh, Hooshang **22**
Seekamp, Art **212**
Segovia, Andrés 842
Seismic sea waves: Hawaii 403-404, 407, 416
Selawik, Alaska: Basketball players **755**
Selfridge, Thomas E. 358
Senegal: Farm couple **223;** Slave trade relics **222**
Serengeti National Park, Tanzania 488, **495-497**
Setenil, Spain: Cave dwellings **854-855**
Severinghaus, C. W. 622-623
Seville, Spain 848-850, **850-851;** Bullfighting 850-853, **852-853;** Cathedral 848-849; Holy Week 845, *nazarenos* **846**
Seville Fair: Equestrienne **844,** cover ill.
Sévres, Treaty of (1920) 368
Seward, William H. 764
Shaban, Ali 379
Shahpur Chemical plant, Bandar-e Shahpur, Iran **29**
Shahsavan (tribe): Iran **36, 37**
Shahyad Tower, Tehran, Iran **14-15**
Sharks: ***Into the Lairs of "Sleeping" Sharks.*** By Eugenie Clark. Apr., pp. 570-584
Shatt al Arab (river), Iran 25, 26, 30
Sheep: Argentina 320, 321, 322, 325, barbecued **324-325;** Utah **462, 463,** 473; Western Australia 172, 179, 180, 181, 187
Sheep shearers: Nova Scotia **339;** Western Australia **172-173**
Shelburne, Nova Scotia: Loyalist founders 510, 514, descendants of **512-513**
Shepherds: Provence, France 695, 707, **715**
Sheridan, Ken 179
Sheridan, Robert 61
Sherry (wine): Spain 854
Shia (Islamic sect): Iran 21, 45, 46, shrine **44-45,** 46
Shipping: Baltimore port 198, **214-215;** Nova Scotia 338, **342-343, 346,** 353, 357; Suez Canal: Pre-1967 797, 811, tonnage increase, planned 811; Tanzania 479, **480-481,** 486, 491
Ships: Disabled **794-795;** Scuttled ships, wartime: Egyptian 793, 798, **799,** 806, German 315, 317; ***Sir Francis Drake.*** By Alan Villiers. Feb., pp. 216-253; Trapped in Suez Canal (1967-1975) 806, **807,** 810, 811, 815; *see also* Research vessels; Shipping; Shipwrecks; Tankers
Shipwrecks: ***How We Found the Monitor.*** By John G. Newton. Jan., pp. 48-61; Strait of Magellan **236**
Shiraz, Iran: Bazaar **17;** High school 40
Shona (tribespeople): Rhodesia 641, ancestor worship 641, 658, 662, ruins of Shona city 643, **644,** 652
Shovelnose lobster larva **824**
Shrimp, seed **392**
Shumaker, Lawrence A. 597, 608, 615
Side-wheeler (vessel) **48,** 49, 57, 59
Sierra de Ronda, Spain **848-849**
Sierra Leone *see* Freetown
Sierra Morena (mountains), Spain 833, 856
Sierra Nevada (mountains), Spain 842, 843
Siffre, Michel **427, 428, 430-432, 434;** ***Six Months Alone in a Cave.*** Mar., pp. 426-435
Siffre, Nathalie 426, **428,** 431, **434,** 435
Silva, Manuel Luciano da **98,** 105
Silva, Nuño da 232, 238
Silver bullion **229**
Silver communion chalice: Mohawks' gift from Queen Anne (1712) 532, **532**
Silver Dart (plane) 361
Silver mines: Utah 454, 456-457, **465**
Simmonds, Ben **745**
Sinai desert, Sinai Peninsula 797, **797-798,** 812, 815, 816; Egyptian maneuvers **812-813;** Israeli occupation 797, 798, 813, fortifications **797,** 798, **813,** 815; United Nations buffer zone 801, 810, 815
Sindi, Rashid **378,** 379, 382
Siniamin, Herman **130**
Sir Francis Drake. By Alan Villiers. Feb., pp. 216-253
Sistan and Baluchistan Province, Iran 41
Sisteron, France **703**
Six Months Alone in a Cave. By Michel Siffre. Mar., pp. 426-435
Skeleton: Bennington Museum, Vt. **538**
Ski lift: Yosemite N.P. **438**
Skiing: Hawaii (island) **408-409;** Mount Dizin, Iran **21;** Utah 452, **455,** 456, resorts 452, **454,** 456
Slave trade: Arabs 479, 487; British abolition of 535; Sir Francis Drake 223, 224
Slaves: American Revolution era 534, 536, 538
Slaymaker, Charles 220
Sleep research 429
Sleep-wake cycles *see* Biorhythm research
"Sleeping" sharks *see* Requiem sharks
Slingshot: Cree boy **556**
Smart, Jock 183
Smart, Richard 412
Smith, Bradford A. 292, 862
Smith, Cecil 648
Smith, Hyrum 445
Smith, Ian 641, 670; With wife **656**
Smith, Joseph 442, 444, 445, 447
Smith, Lyman B. 396
Smith, Malcolm 428

Smith, Melvin 444-445
Snowmobiles: Adirondacks 623, 628, 631; Alaska 735, 737, 744, 748, 757, June supplement; Cree Indians 560, 561
Snowshoeing: Adirondacks 628, 631, 633
Snowshoes: Crees 548-549, **552, 564-566**
Soccer games: Bristol, R.I. **101**; Iran **30-31**
Socialism: ***Tanzania Marches to Its Own Drum.*** By Peter T. White. Apr., pp. 474-509
Socialist party: Martinique, political goals for 139-140, opposition to 140, 141
Soil conservation: Hawaii 423
Solar system: Age 290
Solís, Juan de 314
Somaini, Francesco: Sculpture by **196**
Sonar systems: *Monitor* search 49, 61, diagram **57**; Project FAMOUS 588, 596, 597, 605-606, 608, **609,** diagram **610**
Sondheim, Walter 211
Sons of Liberty (colonial Boston): Mob violence of 520-521
South Africa: Prime Minister 670; Rhodesian guerrillas, helping to fight 654; Rhodesian pioneers from 648, 662
South America: ***Sir Francis Drake.*** By Alan Villiers. Feb., pp. 216-253; *see also* Argentina; Brazil; Nazca Lines
South Cape, Hawaii (island) 416
South Carolina: American Revolution: Battles 524, 533, historical map painting **525-526,** reenactment 532-533; Loyalists 514, 524, 535
Space flights and research: ***Mariner Unveils Venus and Mercury.*** By Kenneth F. Weaver. June, pp. 858-869; ***Mystery Shrouds the Biggest Planet.*** By Kenneth F. Weaver. Feb., pp. 285-294
Spain: England, war with 217, 224, 230, 246-249, **248-249,** 253, hostilities preceding 217, 223, 225, 231, 232, 240, 241, 245; *see also* Andalusia
Spanish Armada 216, 217, 224, 241, 246-249, **248-249,** 253; Route of (map) 230
Spanish conquistadors: Argentina 297, 302, 309, 311, 314, 327; Wealth, accumulation of *see* Spanish treasure
Spanish expeditions, New World: Utah 446
Spanish treasure 311, 314; ***Sir Francis Drake.*** By Alan Villiers. Feb., pp. 216-253
Spencer, Armando **101**
Sperm whales: Western Australia 183, **184, 185,** 186
Spiegel, Ted (Black Star), photographer: ***The Loyalists: Americans With a Difference.*** Apr., pp. 510-539
Spiny lobster (*Panulirus argus*): ***Strange March of the Spiny Lobster.*** By William F. Herrnkind. June, pp. 819-831
Spiny Lobster Undersea Research Project (SLURP) 819
Spirits: African sculpture **502**; Ancestor worship: Rhodesia 641, 645, 658, 662
Sponge: Mid-Atlantic Ridge **594**
Squash harvest: New Brunswick **522-523**
Stacey, Ian 653-654; With wife **657**
Stamp Act (1765) 520
Stanfield, James L., photographer; ***Western Australia, the Big Country.*** Feb., pp. 150-187
"The Star-Spangled Banner" 190, 214
Starr, Blaze 203-204
State Hotel, Gwalia, Western Australia **152**
State parks *see* Adirondack Park, N.Y.
Staten Island, New York City: American Revolution battle reenactment **530-531**
Stein, Gertrude 194, 199
Stephens, John 358, 361-362
Stevens, David 335, 337
Stevens, Murray **336**
Stevens-built boats: Nova Scotia 335, **336, 337**
Stingray **820-821**
Stock, John 639
Stone Age: ***A Bold New Look at Our Past.*** By the Editor. Jan., pp. 62-63; ***Exploring the Mind of Ice Age Man.*** By Alexander Marshack. Jan., pp. 64-89
Stone Age peoples *see* Kreen-Akarores
Stone engravings, prehistoric 82, 84, **84-87,** 86-87
Stophel, Janet **210**
Strange March of the Spiny Lobster. By William F. Herrnkind. June, pp. 819-831
Strum, Shirley C. **681**; ***Life With the "Pumphouse Gang": New Insights Into Baboon Behavior.*** May, pp. 672-691
Stubbs, Cheslyn 183, **185,** 186
Stuccowork: Alhambra, Granada, Spain **835**
Stutchbury, Jeff 649
Submersibles: ***Project FAMOUS—Man's First Voyages Down to the Mid-Atlantic Ridge.*** May, pp. 586-615; I—***Where the Earth Turns Inside Out.*** By J. R. Heirtzler. pp. 586-603; II—***Dive Into the Great Rift.*** By Robert D. Ballard. pp. 604-615
Suez, Egypt 801, 816; War damage 798, **814-815**
Suez, Gulf of: Facilities, proposed improvements in 800, 801
Suez Canal, Egypt: ***New Life for the Troubled Suez Canal.*** By William Graves. June, pp. 792-817
Accidents 811-812
Banks of 810; Clearing operations 805, 806, **808, 809;** Damage along 793, **794-796,** 797, 798, 800, 804, 805, 812, **814-815;** Israeli occupation of 797, 798, 800, 805, 806; Land mines found in 806, **808,** 810
Bridges 811, 812, 816 *see also* Causeways, *below*
Bypasses **808,** 811; Map 801
Causeways 815; Israeli-built 797, 798, dismantling of **796-797**
Clearing operations **792-793,** 793, **796-797,** 797, 805, 806; Casualties 806, 808, 810; Debris, types of **792-793,** 793, 795, 798, **799,** 805, 806; Ordnance technicians 793, **794, 798,** 806, **808, 809;** Participating nations 793, 795, 798, 805-806, 808; Salvage divers **792-794,** 798, **798,** 806
Closures (1869-1967) 793, 797, 798, 812
Construction of 800, 802
Cost of reopening 793, 798
Cost to world during late closure 797
Enlargement of: Necessity for 797, 798, 800; Plans toward 800, 801
History 801; Opening of (1869) 798, **802-803;** Transport history 797
International Agreement of 1888 801
Length 793, 797
Map 801
Nationalization of 797-798, 802
Pilots 811-812
Reopening of 797, 805, 816
Shipping, pre-1967 797, 811
Ships, trapped foreign (1967-1975) 806, **807,** 810, 811, 815; Crews **806, 807,** 810-811, 815
Size 800; Proposed enlargement 800
Traffic pattern, collision preventive 811
Tunnels, proposed 801, 816
Sugar, James A., photographer: ***Provence, Empire of the Sun.*** May, pp. 692-715
Sugar-plantation town: Hawaii (island) **412-413**
Sugar production: Hawaii 412, applied technology in **412**
Sugar refineries, closed: Martinique 132, 134
Sugarcane **664;** Harvesting 423, **665;** Washing method: Hawaii 423
Surprise Lake, Aniakchak Caldera, Alaska **780**
Sutherland, Ivan 467, 468
Suyá Indian: Brazil **273**
Swahili 479, 482, 487, 491, 504
Swan River, Western Australia 182; Valley 183

XUM

Sweeney (Baltimore cabdriver) 189, 197
Swimming pools: BP/Sohio operations center, Alaska **747;** Outdoor, heated: Utah ski resort **454;** Swedish ship: Suez Canal **807**
Sydney, Nova Scotia 335, 345, 357
Syria: Kurds 364, 368

T

Tabriz, Iran: Factory 46
Tahir Ahmed family 378
Takaoka Maru (supertanker) **343**
Tampa Bay, Fla. *see* Tarpon Key
Tanganyika, Lake, Africa 487; Sardine fishing 504, **507**
Tanganyika African National Union (TANU) 482, 484, 486, 490, 504, 505, 509
Tankers **28,** 30-31, 35; Suez Canal accident 811-812; Supertankers **343,** 353, 355, 798, 800, 801
Tanks: Soviet-made 815, T-62's **812, 813;** U. S.-built 816
Tanner, Gilbert 339, 351, 362
Tanner, Lawrence 339, 344
Tanzania: ***Tanzania Marches to Its Own Drum.*** By Peter T. White. Apr., pp. 474-509
Agriculture: Advancement in, step-at-a-time 479, 482, 483, 504; Cattle, drought-stricken **490-491,** 505; Crops 474, 483, 484, 487, 490, 504; European farmers: Losses (money; farmlands) 490, **498-499;** Farming implements 478, 486; Farmlands 484, **498-499;** Farms, nationalization of 490
Area 474, 487
Artwork, tribal **502**
Businesses, state-controlled ("parastatal" enterprises) 474, 484, 490, 505; Dissatisfaction of officials of 505, 509
Capital *see* Dar es Salaam; Dodoma (future capital)
Celebrations **474-475, 478, 482-485,** 503
Climate 487
Cooperatives (*Ujamaa* villages) 478, 479, 482, 484, 486, 490-491, 504; Dissatisfaction in 505, 509
Dams 484, 504
Defense forces 484, **484-485,** 490; National Service camps 482-483; Paramilitary groups 484
Diet 504, 505, 506; Food shortages 478, 481, 491; Food source, possible 492
Drought 474, 481, 490, 491, 505
Economy 487; Exports 490; Imports 479, 480-481, 504
Education 503, 509; Church-provided 504; Schools 503; Universities; colleges 486, 492, 503, 505
Fishing 504, **507**
Flag **487**
Foreign relations: African nations 478, 479, 484, 486, 504; China 486, 504, 505, advisers from **483,** financial arrangements with 479, 481, 504, imports from 479, 480-481, 504, industry set up by 486, military supplies from 483, 484, 505, railway funded and built by 479, **482-483,** 491, 504; U.S.S.R.: Advisers from **482,** military supplies from 505
Geographical regions 474, 484, 487; Lakes 474, 487, 503, 504
Government, socialist 474, 478-479, 482-483, 484, 486; Dissatisfaction of people 505, 509; President *see* Nyerere, Julius K.; Programs for underprivileged *see* Cooperatives, *above*
Health; health care 504
History 474, 477, 479, 483, 487, 498, 503, 504, 505
Housing, rural 484, **506**
Income, personal 492, 505
Industry 486, 490, 509
Languages 479, 482, 487
Map 487
Minerals; metals 490, 504
National parks; game reserves 478, 492 *see also* Wildlife, *below*
Population 474, 487; Foreign element 490; Privileged class 486, 505, 509; Tribespeople; rural population 474, 478, 482, 483-484, 487, **502,** 504, 509
Railways 479, **482-483,** 484, 486, 503, 504
Religion 487; Cardinal 503; Christian churches 479, 490, 503; Islam 498, 500, 509; Religious groups and national development 504; Spirits, belief in 503
Roads 479, 504
Self-reliance, goal of 479, 481, 482, 504
Shipping 479, **480-481,** 486, 491
Tourists 486, 488
Union workers **482-483**
Wildlife 474, 478, 486, 488, 490, **492-497,** 504, 505
see also Zanzibar, *outlined*
Tanzania-Zambia Railway (Great Uhuru Railway) 479, **482-483,** 484, 486, 504
Tar and feather (punishment) 521
Tarpon Key, Fla.: ***Bad Days for the Brown Pelican.*** By Ralph W. Schreiber. Jan., pp. 111-123
Taufiq, Dara 369
Taunton River, Mass. **99,** 101, 105
Tavakoli, Taghi 46
Tawab, Ali 800, 804
Tawilah, Iraq **385**
Tea cultivation: Harvest: Iran **26-27;** Rhodesia 665
Teahouse: Meshgin Shahr, Iran **16**
Tegu, T. Steven 90, 92, 109
Tehran, Iran 1, 2, 6-7, **14-15;** Bazaar 7; Carpet shop **17;** Shoe factory **29**
Teixeira, Manuel **101**
Telescopes: Kitt Peak National Observatory, Ariz. **873;** Radio 869
Tepees: Cree Indians **540,** 545, 549, **550, 551,** 553, 554, 563, **566-567**
Terrade, Jean 143
Terrorists: Argentina 314, 315, 323, 333; Rhodesia 642-643, 652, 654
Tetrahedral cell principle 358, 361; Kites 358, **358-359**
Texada Mines saltworks, Lake McLeod, Western Australia **170-171,** 179
Theresa E. Connor (schooner) 339
Thiokol Corporation: Wasatch Division, Utah 468, 470
Thomas, Dave 179
Thomson's gazelle: Young, prey of baboons 684, 685-686, **686, 687**
Tidal bore: Nova Scotia **342**
Tierra del Fuego, Argentina-Chile 236, 238, 240, 321-322, **324-325**
Tiger shark: Mexico **582,** 584; Mouth, parasite-infested **575**
Tile making: Provence, France 698, 700
Timber industry: Alaska 766
Time, prehistoric recording of (hypotheses): Female-image marking 82, 84, **84, 85;** Lunar time keeping 65-66, **67,** 68, **69,** 73; Seasons, recording of **62-63,** 63, 68, 70, 73, **78,** 80, 82, **83**
Tlingit Indians: Alaska 766
Tobacco growing: Tanzania 504
Toguchi, Roy 416, 417
Tom Price, Mount, Western Australia: Iron mine 173, **174-175,** 176
Tongass National Forest, Alaska 766
Tools, prehistoric 65, 66, **66-67,** 67, **69,** 73, 80, 82, **83;** Presumed 62, **62-63,** 68, 74
Tories *see* Loyalists
Torremolinos, Spain **836-837,** 844
Tower of Gold, Seville, Spain 848
Townsend, Lloyd K.: Paintings by **72-74**
Train, shopping-center: Western Australia **176-177**
Trans-Alaska pipeline 734, 735, 738, 743, 745, 758, 759, 762; Corridor: Map 739-740; Road **741-743,** 753, 758; Valve **738**
Trappers: Adirondacks 628, 631, **633;** *see also* Crees
Trautman, Richard 806
Tree house: Waipio Valley, Hawaii (island) **416**
Trees: Baobab 662, **663;** Birch,

indoor **746-747;** Clove 501; Commercial forests: Zanzibar 503; Ebony logs **502;** Eucalyptus, karri 180, 183; Ilang-ilang 501; Olive 838, 847, **854-855;** Orange 838, 849, 856; Plane **696-697**
Tremonton, Utah 444; Sheep ranch 470, 473
Tribal Trust Land Development Corporation (TILCOR): Rhodesia 662, 665, 666
Tribal Trust Lands, Rhodesia 645, 646, 648, 662, 665, 666, 668
Trinity Church, New York City **529;** Burning of (1776) 529
Trout fishing: Adirondacks 617, **620-621,** 629
Truman, Jim 423
Tsunamis: Hawaii 403-404, 407, 416
Tübingen, Germany: Museum: Ice Age artifacts 67, 68, **68**
Tuna Cup Match, 25th International: Nova Scotia 351
Turcotte, Albert 557, 560
Turkey: Kurds 364, 368, 379
2 O'Clock Club, Baltimore, Md. 203
Txukahameis (Indians) 254, 260, 264; ***Brazil's Txukahameis: Goodbye to the Stone Age.*** Photos by W. Jesco von Puttkamer. Feb., pp. 270-283
Adornment: Beaded ornaments **275, 278, 279, 283,** cover ill.; Body paint **271, 276-281, 283,** cover ill.; Lip disk **271, 275, 276, 280, 281**
Ceremonies: Anteater ritual 275; Corn festival **280-281;** Name confirmation 276; *see also* Puberty rites, *below*
Chiefs 280, **281,** 282
Clothes, adoption of **282, 283**
Costumes, ceremonial **274, 280-281**
Customs and skills, tribal: Learning of 275, 278
Decoration and design *see* Adornment; Costumes, ceremonial, *above;* Headdress, *below*
Feasts **276-277**
Fishing 282
Food 275, **275-277,** 280, 282
Hairstyles **278, 279**
Headdress **270-273, 279-281**
Hostilities: Intertribal 270, 280, 281; Intratribal 280; Raids against *civilizados* 270, 275, 278, 280
Hunting 275, 282
Labor, division of 277
Metal goods, adoption of **275, 278,** 280, 282, **282**
Outside contacts 270, 275, 280; Jesco von Puttkamer 270, 273, 278; Villas Boas brothers 270, **282,** gifts from **282**
Puberty rites 278
Shaman **281**
Supernaturalism 281
Superstition 272
Transition from primitiveness to civilization 270, 282
Txukahameis outside Xingu, problems of 280
Weapons: Firearms **275, 280-281**
Tyendinaga Indian Reserve, Ontario: Loyalist Mohawks 532

U

Udall, Stewart L. 734
Underwater exploration *see* Project FAMOUS
Union Jack **511, 515,** 535; Mohawk Indians 532
Union of Soviet Socialist Republics: Caspian Sea pollution 20; Caviar production 20; Fishing: North American waters 351, 352; Iran, relations with 20, 46; Kurds 364, 368; Military equipment used by other nations 26, 369, **374,** 505, **792-793,** 798, 808, **812, 813,** 815, 816; Natural gas 6; Navy: Indian Ocean 486; Space probes: Venus 860, 861-862; Tanzania: Advisers in **482**
Union workers: May Day: Tanzania **482-483**
United Empire Loyalists 521, 530-532
United Methodist Church: Rhodesia: Bishop **657,** 668, 670
United Nations: Sanctions against Rhodesia 642, 645, 662, 666, 668
United Nations Emergency Force: Egyptian-Israeli buffer zone 801, **810,** 815
United Park City Mines Company, Utah: Ski resort **454,** 456
United States: Demonstrations against 503; History *see* American Revolution, *and* names of states and cities; Indian Ocean naval base 486, 503; Iran, assistance to 20, 25; Scientific research *see* Mariner 10, Pioneer 10, Project FAMOUS; Southernmost point in 416; Suez Canal clearing operations 793, 795, 798, 805-806, 808, cost 793; *see also* Adirondack Park, N.Y.; Alaska; Baltimore, Md.; Hawaii; New England; Utah
U. S. Army: Ordnance advisers: Suez Canal clearing **808**
U. S. Army Reserve: *Monitor* search 49, 57, 61
U. S. Department of the Interior: Endangered species list 113
U. S. Fish and Wildlife Service: Pelican studies 122, 123
U. S. Forest Service 748, 766
U. S. Immigration Service: Logan International Airport, Boston, Mass. 90, **92**
U. S. Naval Academy, Annapolis, Md.: *Monitor* research **58,** 61
U. S. Navy: *Monitor* expedition 51, 56, 61, photomosaic of wreck **50-52;** Suez Canal clearing operations **794-795,** 797
University of Maryland: Laboratory of Chemical Evolution 291; Lacrosse players **212-213**
University of New Brunswick, Fredericton 515, 517
University of Rhodesia, Salisbury 646
University of Utah, Salt Lake City: Artificial-organs research; inventions 467-468
Upicksoun, Joe 735
Upper Provence (region), France 693, 715; Wine growing **714-715**
Ushuaia, Argentina 321, 322, 325
Utah: ***Utah's Shining Oasis.*** By Charles McCarry. Apr., pp. 440-473
Capital *see* Salt Lake City
Celebrations **440-441, 466**
Cultural activities 440, 448, **448-451,** 465-467
Fault zone 456
History: European exploration 446; Indian settlements 446; Mormon settlement 440, 442, 445; Railroads, meeting of **466,** 473
Indians 446
Industry 444, 452, 456, 468, 470
Land 468, 473; Fragility of, and current development 452, 456, catastrophes, possibility of 456; Mormons' desert-to-oasis feat 440, 444, 445
Map 444
Minerals 452, 454, 456, 457, 465
Mines and mining 454, 456-457, **464, 465**
Monuments **442,** 445
Population 444, 445
Ranches and ranchlands **458-465,** 459-465, **468-469,** 470, 472, 473
Research: Animal breeding 468; Commercial 468, 470; *see also* Universities, *below*
Rodeoing (sport) 463; Neighborhood rodeo **472, 473**
Ski resorts 452, 454, **454,** 456
State capitol **442**
Statehood 444
Towns, arrangement of 440, 444, 445, 446
Universities 444, 467; Research and inventions 467-468
see also Mormons, *outlined*
Utah Lake, Utah 440, 456; Discovery 446
Utah Symphony Orchestra **448,** 466; Tours 467

V

Valentino, Rudolph 199
Valley of Ten Thousand Smokes, Alaska **782-783**

XUM

Valparaíso, Chile: Drake's sacking of 237
Vandegrift, Roy 533
Van der Gaag, Case 183
van Gogh, Vincent *see* Gogh
Var (department), France 707-708, 709
Vega de Granada, Spain 842, 843
Velázquez, Diego Rodríguez de Silva y 851
Velmont, Mme Georges **125**
Venera 8 (Soviet probe) 861-862
Vent Mountain, Aniakchak Caldera, Alaska **781**
Venture I (trawler) 103, 105
Venus (planet): ***Mariner Unveils Venus and Mercury***. By Kenneth F. Weaver. June, pp. 858-869
Atmosphere 860, 861, 862, 867; Clouds 858, **860, 861,** 862, 863, 867, movement of 860, **860,** 863, 867; Density 860, 861, 862; Refractivity 862
Gravity 860, 867
"greenhouse effect" 861
Lifelessness 860, 861, 867
Mariner 10 flyby 858, 860, 863; Diagram **864**
Orbit 867; Diagram **864**
Probes, pre-Mariner 10 860, 861, 862; Number of 860
Radar observations 862
Rotation, clockwise 860, 867
Size 860
Surface 860-861, 862
Temperatures 860-861
Ultraviolet photographs of **860, 861,** 863
Venus, Mount, Mid-Atlantic Ridge **590,** 602, 603, 606
Veracruz, Mexico: English and Spanish skirmish (1568) 224, 231
Verdon River, France 698; Damming of 707, 708
Vermont: Execution of Loyalist 538
Verneuil, Etienne 143
Verrazano, Giovanni de 729
Victoria, Lake, Africa 487, 503
Victoria Falls, Zambezi River, Africa 643, **646, 647,** 648-649
Viglietti, Fernand 698
Villas Boas, Claudio 256, 270, **282**
Villas Boas, Orlando 256, 270
Villiers, Alan **149;** GEOGRAPHIC articles by 149; ***Sir Francis Drake***. Feb., pp. 216-253
Vineyards: Andalusia, Spain **854-855;** Argentina 327, **328;** Provence, France 693, 695, 700, 711, **714-715;** Swan River Valley, Western Australia 183
Virginia: American Revolution: Slaves, escaped 538; Civil War 58
Virginia, C.S.S. 49, 56 *see also Merrimack*
viritas (drink) 205
Vogelherd Cave, Germany: Ice Age artifacts 67, 68, **68**
Vogler, Joe 745
Volcanic eruptions: Hawaii (island) 399, **400-402,** 407, cover ill., damage **403,** 407, 410-411, 425, predictability of 407, 410; Martinique (1902) 126, 128, 135-136
Volcanoes: Alaska 783, 790, caldera **780-781;** Studies of 403, 407, 410, 425
Voyage *see* World voyage

W

Wainwright, Alaska 737, 744; Schoolboy **745**
Waipio Valley, Hawaii (island) 405, 407; Tree house **416**
Waldrop, Bob 749
Walters, Henry 203
Walters Art Gallery, Baltimore, Md. 197; Egyptian art **202**
Wankie National Park, Rhodesia 645, 649
Ward, Fred (Black Star) 439; ***The Changing World of Canada's Crees***. Apr., pp. 541-569
Warner, Howard W. 520
Warrior-priests: Nazca culture 726, **726**
Warth, Tom **669**
Wasatch Front: ***Utah's Shining Oasis***. By Charles McCarry. Apr., pp. 440-473
Wasatch Oasis *see* Wasatch Front
Wasatch Range, Idaho-Utah 440, **442-443,** 447, 452, **454, 455,** 456, 465; Elk ranch **468-469**
Wasps, trial by: Txukahamei Indians 278
Waste-treatment system 470
Water pipe (smoking device) **16**
Waterbuck: Rhodesia **660-661**
Waterfalls: Hawaii (island) 405, **423;** Iguazú Falls **303-305;** Victoria Falls 643, **646, 647,** 648-649; Western Australia **167**
Watters, Joseph 59
Watts, Gordon 49, 56, 57, 60
Weaver, Kenneth F.: ***Mariner Unveils Venus and Mercury***. June, pp. 858-869; ***Mystery Shrouds the Biggest Planet*** (Jupiter). Feb., pp. 285-294
Webster, Edwin C. 224, 225
Weddings: Cree Indians **562-563;** Fall River, Mass. **108;** Les Salles, France **706**
Weeden, Robert 748
Weeks, Grenville M. 59
Weistche, Clymie **552**
Weistche, Johnny **559**
Welensky, Sir Roy 670
West Africa: Missionary movement 536
West Indies *see* Martinique
Western Australia, the Big Country. By Kenneth MacLeish. Feb., pp. 150-187
Aborigines **165, 166,** 167-168
Agriculture 161, 163, 166-167, 168, 179, 180-182, 187
Ballet **168**
Capital *see* Perth
Cattle industry **151,** 163, **164-165,** 167, 168, 180, 187
Education 168
Exports 163, 170, 174, 179
Facts and figures 160
Fishing 179, 181, 182
Forestry 180, 183
Gas, natural 173
Gold 153, 158, 171; Miners **174;** Prospector **166**
History 158, 168, 171
Iron 160, 171, 173, 176-177; Mines **174-175**
Map 160
Mining *see* Gold; Iron, *above;* Nickel; Salt, *below*
Nickel 158, 160, 161
Oil exploration **159,** 160, 173
Pearling 160, 168, 170-171
Population 157, 158, 160; Distribution 160, 180, 182; Ethnic composition 168, 176, 179, 180, 182
Salt industry **170-171**
Sheep industry **172-173,** 179, 180, 181, 187
Tourism 181
Whaling 160, 183, **184-185,** 186, 187
Wine industry 183
Whales; whaling: Alaska 735-736; Australia 160, 183, **184-185,** 186-187; Killer whales: Nazca culture 726, images of **724, 727;** Whaling crews, 19th-century 98, 100, 103; Whaling moratorium 185
Wheat: Western Australia 180-181, **181,** harvesting **180**
Where the Earth Turns Inside Out (Mid-Atlantic Rift). By J. R. Heirtzler. May, pp. 586-603
Which Way Now for Argentina? By Loren McIntyre. Mar., pp. 296-333
Whiskeychan, Grace **540**
Whiskeychan, James **547,** 553, 561, 563, **564, 566, 567;** Sons **547**
Whiskeychan, Samuel and Betty: Wedding **562-563**
White, Peter T. 439; ***Tanzania Marches to Its Own Drum***. Apr., pp. 474-509
White Sands N.M., N. Mex. **437A**
Wild rivers: Proposed: Alaska 740, 744, 745, 781
Wildebeest: Tanzania 488, **492-497**
Wilderness: ***Preserving America's Last Great Wilderness*** (Alaska). Text by David Jeffery. June, pp. 769-791; *see also* Adirondack Park, N.Y.
Wildlife: ***Beauty and Beasts in a Last Frontier*** (Alaska). June supplement; *see also* Baboon, olive; *and* Rhodesia; Tanzania
Wildlife refuges *see* Rhodesia;

Tanzania; Tarpon Key, Fla.
Williams, Eli 774
Williams, Wallace **774-775**
Williamson, Danny 181-182
Williamson, O. J. 180
Wilson, Sloan 618
Wilson, Valentine 597, 605, **607**, 615
Wilson Lake, Alaska 766
Winds: *mistral* 692, 697
Windsor, Wallis Warfield, Duchess of 190
Windward Islands *see* Martinique
Wine growing: Andalusia, Spain **854-855**; Argentina 327, **328**, 329; Australia 183; Provence, France 695, 700, 701, **714-715**; Tanzania 474
Wine-tasting society: France **694**, **695**, 700-701
Wittelsberger, Franz **212**
Women: Construction work: Zanzibar 498, **508-509**
Women of the Revolution (Iran): Health Corps **35**
Wood carving: Eagle **870-871**; Ebony figures **502**
Woods Hole Oceanographic Institution, Mass.: Expedition *see* Project FAMOUS
Woodside-Burmah Oil: Australia: Oil exploration 173
Woodson, LeRoy, Jr. 295, **295**; ***The Kurds of Iraq: "We Who Face Death."*** Mar., pp. 364-387
Woodson, Ruth 295
Woolen cloth, pounding of **338**
World voyage: ***Sir Francis Drake***. By Alan Villiers. Feb., pp. 216-253
World War II: Argentina's amassing of wealth 314; *Graf Spee* incident 315
World Wildlife Fund: Gold Medal 618
Worms **392**, **393**
Worthington Valley, Md. 203
Wrangell Mountains, Alaska 744, 745, 758
Wrangell-St. Elias National Park (proposed), Alaska 744; Glacier **786-787**
Wright, Esmond 538
Writer-photographers: Grosvenor editorial 295
Wyndham, Western Australia 161

X

Xavantes (Indians): Brazil 258, 260
Xingu National Park, Brazil 260, 264, 268 *see also* Poroi village

Y

Yacht: Martinique **130**
Yahgan Indians 321-322
Yarmouth, Nova Scotia 338
Yazd, Iran: Aqueducts 40-41
Yganegy, Ismail 46
Yosemite Valley, Calif. **437**
Young, Brigham 440, 442, 444, 445, 448, 457, 465
Young, Gordon: ***Hawaii, Island of Fire and Flowers***. Mar., pp. 399-425
Young, Mahonri: Monument sculpted by **442**, 445
Your National Geographic Guide . . . (The New America's Wonderlands, Our National Parks). Mar., pp. 436-438
Yucatán Peninsula, Mexico *see* Mujeres, Isla
Yukon-Charley National Rivers area (proposed), Alaska 772
Yukon Valley, Alaska 744

Z

Zagros Mountains, Iran-Iraq 20, 25, 40, 367; Dez Dam **24**
Zahara, Spain **857**
Zahedi, Ardeshir **10**
Zahl, Paul A. **389**; ***Hidden Worlds in the Heart of a Plant***. Mar., pp. 389-397
Zambezi Escarpment area, Rhodesia: Terrorist raids 642-643, 652-654, 657, protection of citizens and property **642-643**, **652-653**, 654, **657**
Zambezi River, Africa 648, 660-661; Dam 649; Victoria Falls **646**, **647**, 648-649
Zambia: Copper exporting 479, **481**; Hydroelectric power 649; Prime Minister **478**; Railway 479, **482-483**, 486; Rhodesian guerrilla sanctuary 643; Water-transport access 481
Zanzibar: ***Tanzania Marches to Its Own Drum***. By Peter T. White. Apr., pp. 474-509
  Agriculture: Cash returns, good 500, 501; Crops 500-501, 503; Land distribution 500, 501; State farms 503
  Economy 500, 501; Exports 500, 501; Imports 491, 501
  Fishing, commercial 501
  Foreign relations: China, assistance from 501; East Germany, assistance from 498; United States, demonstrations against 503
  Forestry 503
  Government 498; President *see* Jumbe, Aboud
  History 474, 487, 491, 498, 500
  Housing 498, **500-501**, 503, **508-509**
  Industry 501
  Land redistribution 500
  Military unit **484-485**
  Nation-building scheme 498, 509; Construction, housing 498, **500-501**, **508-509**
  Population 501; Arabs 498, 500
  Religion 498, 500, 509
  Television, public 500, **500**, 503, 509
  Union with Tanganyika 474, 487, 498, 500; Celebration of **474-475**, **478**, **484-485**
  Women: Construction workers 498, **508-509**
Zanzibar town, Zanzibar 491, 498, 500, **500-501**, **508-509**
Zebras **493-494**; Pet **669**
Zewe, Iraq: Cave dwellings **370**, 378
Zimbabwe (ruins), Rhodesia 643, **644**, 652; Theories concerning 645
Zimbabwe African National Union (ZANU) 652-653
Zimbabwe African People's Union (ZAPU) 653, 656
Zinc mines: Utah 454, 456-457
Zion Wilberforce Church, Freetown, Sierra Leone **536-537**
Zolfogari, Mahbub **16**
Zurbarán, Francisco de 849

INDEXING STAFF

JOLENE M. BLOZIS *Chief*
MARTHA K. HIGHTOWER *Assistant Chief*
GEORGE I. BURNESTON
PHILIP G. GUTEKUNST
BARBARA L. KLEIN
ANNE K. McCAIN
BRIT A. PETERSON
VIRGINIA S. THOMPSON

XUM

Volume 148 July-December 1975

NATIONAL GEOGRAPHIC

INDEX

July-December 1975

VOLUME 148

PUBLISHED BY THE
NATIONAL GEOGRAPHIC SOCIETY
WASHINGTON, D. C.

XUM

NATIONAL GEOGRAPHIC SOCIETY

WASHINGTON, D. C.

Organized "for the increase and diffusion of geographic knowledge"

GILBERT HOVEY GROSVENOR
Editor, 1899-1954; President, 1920-1954
Chairman of the Board, 1954-1966

THE NATIONAL GEOGRAPHIC SOCIETY is chartered in Washington, D. C., in accordance with the laws of the United States, as a nonprofit scientific and educational organization for increasing and diffusing geographic knowledge and promoting research and exploration. Since 1890 the Society has supported 1,199 explorations and research projects, adding immeasurably to man's knowledge of earth, sea, and sky. It diffuses this knowledge through its monthly journal, NATIONAL GEOGRAPHIC; more than 50 million maps distributed each year; its books, globes, atlases, and filmstrips; National Geographic WORLD, a magazine for 8- through 12-year-olds; information services to press, radio, and television; technical reports; exhibits from around the world in Explorers Hall; and a nationwide series of programs on television.

Articles and photographs of travel, natural history, and expeditions to far places are desired. For material used, generous remuneration is made.

MELVIN M. PAYNE, President
ROBERT E. DOYLE, Vice President and Secretary
GILBERT M. GROSVENOR, Vice President
THOMAS M. BEERS, Vice President and Associate Secretary
HILLEARY F. HOSKINSON, Treasurer
OWEN R. ANDERSON, WILLIAM T. BELL,
LEONARD J. GRANT, W. EDWARD ROSCHER,
C. VERNON SANDERS, Associate Secretaries

BOARD OF TRUSTEES

MELVILLE BELL GROSVENOR
Chairman of the Board and Editor-in-Chief

THOMAS W. McKNEW, Advisory Chairman of the Board

FRANK BORMAN
President, Eastern Airlines

WARREN EARL BURGER
Chief Justice of the United States

ROBERT E. DOYLE
Vice President and Secretary, National Geographic Society

LLOYD H. ELLIOTT, President, George Washington University

CRAWFORD H. GREENEWALT
Director, E. I. du Pont de Nemours & Company

GILBERT M. GROSVENOR
Editor, National Geographic

ARTHUR B. HANSON, General Counsel, National Geographic Society

CARYL P. HASKINS, Former President, Carnegie Institution of Washington

CARLISLE H. HUMELSINE
President, The Colonial Williamsburg Foundation

MRS. LYNDON B. JOHNSON

CURTIS E. LEMAY, Former Chief of Staff, U. S. Air Force

WM. McCHESNEY MARTIN, JR.
Former Chairman, Board of Governors, Federal Reserve System

MELVIN M. PAYNE, President, National Geographic Society

LAURANCE S. ROCKEFELLER
President, Rockefeller Brothers Fund

ROBERT C. SEAMANS, JR.
Administrator, Energy Research and Development Administration

JUAN T. TRIPPE, Honorary Chairman of the Board, Pan American World Airways

FREDERICK G. VOSBURGH
Former Editor, National Geographic

JAMES H. WAKELIN, JR., Former Assistant Secretary of Commerce for Science and Technology

JAMES E. WEBB, Former Administrator, National Aeronautics and Space Administration

ALEXANDER WETMORE
Research Associate, Smithsonian Institution

CONRAD L. WIRTH, Former Director, National Park Service

Trustees Emeritus
H. RANDOLPH MADDOX
BENJAMIN M. McKELWAY
LLOYD B. WILSON
LOUIS B. WRIGHT

COMMITTEE FOR RESEARCH AND EXPLORATION

MELVIN M. PAYNE, Chairman
EDWIN W. SNIDER, Secretary
ALEXANDER WETMORE, Chairman Emeritus

BARRY C. BISHOP, GILBERT M. GROSVENOR, MELVILLE BELL GROSVENOR, CARYL P. HASKINS, STERLING B. HENDRICKS, Scientist Emeritus, U. S. Department of Agriculture, THOMAS W. McKNEW, ROBERT C. SEAMANS, JR., T. DALE STEWART, Physical Anthropologist Emeritus, Smithsonian Institution, FREDERICK G. VOSBURGH, JAMES H. WAKELIN, JR., GEORGE E. WATSON, Curator of Birds, Smithsonian Institution, FRANK C. WHITMORE, JR., Research Geologist, U. S. Geological Survey, CONRAD L. WIRTH, LOUIS B. WRIGHT, and PAUL A. ZAHL, Former Senior Scientist, National Geographic Staff

Assistant Secretaries of the Society: FRANK S. DELK, JOSEPH B. HOGAN, ADRIAN L. LOFTIN, JR., LEWIS P. LOWE, RAYMOND T. McELLIGOTT, JR., EDWIN W. SNIDER. Assistant Treasurer: WARD S. PHELPS
Leonard J. Grant, Editorial Assistant to the President; Edwin W. Snider, Richard E. Pearson, Administrative Assistants to the President

Secretary's Staff: *Administrative:* Earl Corliss, Jr., Harriet Carey, Frederick C. Gale, Frank M. Twigger. *Accounting:* Jay H. Givans, Alfred J. Hayre, William G. McGhee, Martha Allen Baggett. *Membership Promotion and Statistics:* Charles T. Kneeland (Chief), Thomas M. Kent. *Educational Services:* Jerome F. Owecke, Carl W. Harmon, Jr. *Payroll and Retirement:* Howard R. Hudson (Supervisor); Mary L. Whitmore, Dorothy L. Dameron (Assistants). *Procurement:* J. P. M. Johnston, Thomas L. Fletcher, Robert G. Corey, Sheila H. Immel. *Member Relations:* Paul B. Tylor. *Publications:* Geneva S. Robinson. *Data Assembly:* Peter F. Woods. *Promotion:* Robert J. Warfel, Towne Windom, F. William Rath, Peter P. Jones. *Printing:* Joe M. Barlett, Frank S. Oliverio. *Production Control:* James P. Kelly, James M. Swartz. *Personnel:* James B. Mahon, Glenn G. Pepperman, Nellie E. Sinclair. *Medical:* Thomas L. Hartman, M.D. *Translation:* Zbigniew Jan Lutyk

COPYRIGHT © 1976 National Geographic Society, 17th and M Sts. N.W., Washington, D. C. 20036. All rights reserved. Reproduction of the whole or any part of the contents without written permission is prohibited.

NATIONAL GEOGRAPHIC MAGAZINE

MELVILLE BELL GROSVENOR *Editor-in-Chief and Board Chairman*
MELVIN M. PAYNE *President of the Society*
GILBERT M. GROSVENOR *Editor*
JOHN SCOFIELD *Associate Editor*

Senior Assistant Editors
Robert L. Breeden, James Cerruti, W. E. Garrett, Kenneth MacLeish
Jules B. Billard, Allan C. Fisher, Jr., Carolyn Bennett Patterson

Assistant Editors: Andrew H. Brown, William Graves, Robert P. Jordan, Joseph Judge, Edward J. Linehan, Samuel W. Matthews, Bart McDowell, Merle Severy, Kenneth F. Weaver

Senior Editorial Staff: Thomas Y. Canby, William S. Ellis, Rowe Findley, Bryan Hodgson, Elizabeth A. Moize, John J. Putman, Gordon Young

Foreign Editorial Staff: Luis Marden (Chief); Thomas J. Abercrombie, David S. Boyer, Howard La Fay, Volkmar Wentzel, Peter T. White

Editorial Staff: Harvey Arden, Kent Britt, Mike W. Edwards, Noel Grove, Alice J. Hall, Werner Janney, Michael E. Long, John L. McIntosh, Ethel A. Starbird, George E. Stuart (Archeology)

Art Director: Howard E. Paine; Charles C. Uhl (Asst.), Robert E. Pullman

Research: Margaret G. Bledsoe (Chief); Ann K. Wendt (Associate Chief); Carolyn H. Anderson, Susan L. Anderson, Judith Brown, Marcia M. Butler, Susan Day Fuller, Bette Joan Goss, Ann B. Henry, Jan Holderness, Levenia Loder, Jean B. McConville, Carol M. McNamara, Frances H. Parker, Lesley B. Rogers, Frances W. Shaffer, Michaeline A. Sweeney. *Correspondence:* Carolyn F. Clewell, Clifford R. DuBois

Library: Virginia Carter Hills (Librarian); Patricia Murphy Smith (Assistant Librarian), Carolyn Locke, Louise A. Robinson, Marta Strada

Editorial Administration: Joyce W. McKean, Assistant to the Editor; Virginia H. Finnegan, Lucille L. McInerney, Winifred M. Myers, Shirley Neff, M. Jean Vile (Assistants); Jolene M. Blozis (Indexes); Evelyn Fox, Dolores Kennedy (Travel); Jeanne S. Duiker, Lorie Wendling, Mary Anne McMillen (Records)

ILLUSTRATIONS STAFF: ***Illustrations Editor:*** Herbert S. Wilburn, Jr. *Associate Illustrations Editor:* Thomas R. Smith. *Art Editor:* Andrew Poggenpohl. *Assistant Illustrations Editors:* David L. Arnold, O. Louis Mazzatenta, Charlene Murphy, Robert S. Patton, Elie S. Rogers, W. Allan Royce, Jon Schneeberger, Mary Griswold Smith. *Layout and Production:* H. Edward Kim (Chief). *Picture Editors:* Bruce A. McElfresh, Paula C. Simmons, Barbara A. Shattuck (Assistant). *Librarian:* L. Fern Dame. *Assistant Librarian:* Carolyn J. Harrison

Geographic Art: William N. Palmstrom (Chief); Walter Q. Crowe, John D. Garst, Jr. (Assistant Chiefs). *Artists:* Lisa Biganzoli, William H. Bond, John W. Lothers, Robert C. Magis, Ned M. Seidler, Lloyd K. Townsend. *Cartographic Artist:* Snejinka Stefanoff. *Map Editor:* John T. Blozis. *Research:* Virginia L. Baza, Dorothy A. Nicholson, Ann Ruhnka. *Production:* Isaac Ortiz (Supervisor); Iskandar Baday, Elie Sabban, Leo B. Zebarth

Engraving and Printing: Dee J. Andella (Chief); William W. Smith (Assistant Chief); John T. Dunn, John R. Metcalfe, James R. Whitney

PHOTOGRAPHIC STAFF: ***Director of Photography:*** Robert E. Gilka. *Assistant Directors:* Dean Conger, Joseph J. Scherschel. *Photographers:* James L. Amos, James P. Blair, Victor R. Boswell, Jr., Bruce Dale, Dick Durrance II, Gordon W. Gahan, Otis Imboden, Emory Kristof, Bates Littlehales, Robert W. Madden, George F. Mobley, Robert S. Oakes, Winfield Parks, Steve Raymer, Robert F. Sisson (Natural Science), James L. Stanfield. Lilian Davidson (Administration). *Film Review:* Guy W. Starling (Chief). *Photographic Equipment:* John E. Fletcher (Chief)

Photographic Services: Carl M. Shrader (Chief); Milton A. Ford (Associate Chief); Jon R. Adams, Herbert Altemus, Jr., David H. Chisman, Lawrence F. Ludwig (Assistant Chief, Phototypography), Claude E. Petrone, J. Frank Pyles, Jr.; Joan S. Simms (Assistant)

RELATED EDUCATIONAL SERVICES OF THE SOCIETY

Cartography: William T. Peele (Chief); David W. Cook (Associate Chief). *Cartographic Staff:* Margery K. Barkdull, Charles F. Case, Ted Dachtera, Richard J. Darley, John F. Dorr, Russel G. Fritz, Richard R. Furno, Charles W. Gotthardt, Jr., Thomas L. Gray, Catherine M. Hart, Donald A. Jaeger, Harry D. Kauhane, Manuela G. Kogutowicz, Mary Anne McAleer, Charles L. Miller, Robert W. Northrop, Richard K. Rogers, John F. Shupe, Charles L. Stern, Douglas A. Strobel, Tibor G. Toth, Thomas A. Wall, Thomas A. Walsh, Charles M. Wilson III

Books: Jules B. Billard (Chief); Thomas B. Allen, Seymour L. Fishbein (Associate Chiefs); Ross Bennett, Charles O. Hyman, Anne Dirkes Kobor, David F. Robinson, Wilhelm R. Saake, Verla Lee Smith

Special Publications and School Services: Robert L. Breeden (Chief); Donald J. Crump (Associate Chief); Philip B. Silcott (Assistant Chief); William L. Allen, Josephine B. Bolt, David R. Bridge, Linda Bridge, Susan C. Burns, Jan N. Clarkson, Ronald Fisher, William R. Gray, Sallie M. Greenwood, Mary Ann Harrell, Suzanne J. Jacobson, Margaret McKelway Johnson, Geraldine Linder, Louisa V. Magzanian, Robert Messer, Ursula T. Perrin, Cletis Pride, Tee Loftin Snell, Joseph A. Taney, Jennifer C. Urquhart, George V. White, Merrill Windsor. *National Geographic WORLD:* Ralph Gray (Editor); Charles H. Sloan (Associate Editor); Joseph B. Goodwin, Ellen Joan Hurst, Anne H. Oman, Patricia F. Robbins, Veronica Smith, Janis K. Wheat. *Books for Young Explorers:* Cynthia Ramsay. *Filmstrips:* Jimmie Abercrombie, James B. Caffrey, Margery G. Dunn, Jacqueline Geschickter, Jane R. McCauley, H. Robert Morrison, George Peterson, Judith E. Rinard

Recording Division: John M. Lavery (Chief)

News Service: Windsor P. Booth (Chief); Paul Sampson (Assistant Chief); Donald J. Frederick, William J. O'Neill, Robert C. Radcliffe

Television and Educational Films: Dennis B. Kane (Chief); Sidney Platt (Supervisor, Educational Projects); Patricia F. Northrop (Director of Promotion); Carl E. Ziebe, Yeorgos N. Lampathakis, Marjorie M. Moomey (Chief of Research)

Lectures: Joanne M. Hess (Chief); Robert G. Fleegal, Mary W. McKinney, Gerald L. Wiley

EUROPEAN OFFICE: W. Edward Roscher (Associate Secretary and Director), Jennifer Moseley (Assistant), 4 Curzon Place, Mayfair, London, W1Y 8EN

ADVERTISING: *Director:* James L. Till. *Manager of Agency Relations:* William Turgeon, 1251 Avenue of the Americas, New York, N.Y. 10020. *Regional managers—Eastern:* George W. Kellner, New York. *Midwestern:* Robert R. Henn, Chicago. *San Francisco:* Cecil H. London. *Los Angeles:* Jack Wallace. *Canada:* Robert W. Horan, New York. *International:* John F. Grant, New York. *Travel:* Gerald A. Van Splinter, New York. *European Director:* Richard V. Macy, 21 rue Jean-Mermoz, Paris 8e, France. *Production:* E. M. Pusey, Jr.

Contents

Page

JULY 1975

EDITOR'S PAGE 1

CAN THE WORLD FEED ITS PEOPLE? 2
By Thomas Y. Canby, with photographs by Steve Raymer

BANGLADESH: THE NIGHTMARE OF FAMINE 33
A picture story by Steve Raymer

CAPE COD'S CIRCLE OF SEASONS 40
By Tom Melham, with photographs by James P. Blair
Map supplement included—*Close-up: U.S.A., Western New England*

THE LAST ANDAMAN ISLANDERS 66
Article and photographs by Raghubir Singh

BENJAMIN FRANKLIN, PHILOSOPHER OF DISSENT 93
By Alice J. Hall, with photographs by Linda Bartlett

AN OZARK FAMILY CARVES A LIVING AND A WAY OF LIFE 124
A picture story by Bruce Dale

TIRELESS VOYAGER, THE WHISTLING SWAN 134
By William J. L. Sladen, with photographs by Bianca Lavies

START THE WORLD, I WANT TO GET ON! 148
National Geographic WORLD—A New Magazine for Young Readers

AUGUST 1975

EDITOR'S PAGE 151

THE NIGER: RIVER OF SORROW, RIVER OF HOPE 152
Article and photographs by Georg Gerster

TORONTO: CANADA'S DOWAGER LEARNS TO SWING 190
By Ethel A. Starbird, with photographs by Robert W. Madden

ICE BIRD ENDS HER LONELY ODYSSEY 216
Article and photographs by David Lewis

WILL COAL BE TOMORROW'S "BLACK GOLD"? 234
By Gordon Young, with photographs by James P. Blair

THE TREASURE OF PORTO SANTO 260
By Robert Sténuit, with photographs by the author and William R. Curtsinger

THE PIOUS ONES (HASIDIC JEWS) 276
By Harvey Arden, with photographs by Nathan Benn

SEPTEMBER 1975

EDITOR'S PAGE 299

MARK TWAIN: MIRROR OF AMERICA 300
By Noel Grove, with photographs by James L. Stanfield

THE STRANGEST SEA (RED SEA) 338
By Eugenie Clark, with photographs by David Doubilet

RAINBOW WORLD BENEATH THE RED SEA 344
A portfolio by David Doubilet

GREENLAND FEELS THE WINDS OF CHANGE 366
By John J. Putman, with photographs by George F. Mobley

SOUTH KOREA: WHAT NEXT? 394
By Peter T. White, with photographs by H. Edward Kim

AMONG ALASKA'S BROWN BEARS 428
Article and photographs by Allan L. Egbert and Michael H. Luque

Page

OCTOBER 1975

EDITOR'S PAGE 443
ORANGUTANS, INDONESIA'S "PEOPLE OF THE FOREST" 444
By Biruté Galdikas-Brindamour, with photographs by Rod Brindamour
PATRIOTS IN PETTICOATS 475
By Lonnelle Aikman, with paintings by Louis S. Glanzman
A reminder of the women of the American Revolution
THE ARAB WORLD, INC. 494
By John J. Putman, with photographs by Winfield Parks
ALABAMA, DIXIE TO A DIFFERENT TUNE 534
By Howard La Fay, with photographs by Dick Durrance II
Map supplement included—*Close-up: U.S.A., The Southeast*
MIRACLE OF THE POTHOLES 570
Text by Rowe Findley, with photographs by Robert F. Sisson
FOR OUR BICENTENNIAL... RELIVE THE AMERICAN ADVENTURE 580
We Americans—New Geographic Book

NOVEMBER 1975

EDITOR'S PAGE 583
CHRISTOPHER COLUMBUS AND THE NEW WORLD HE FOUND 584
By John Scofield, with photographs by Adam Woolfitt
Double map supplement included—*The Political & Physical World*
CHINATOWN, THE GILDED GHETTO 627
Article and photographs by William Albert Allard
A probe of San Francisco's Chinese community
TREK TO LOFTY HUNZA—AND BEYOND 644
Article and photographs by Sabrina and Roland Michaud
LIBRARY OF CONGRESS: THE NATION'S BOOKCASE 671
By Fred Kline, with photographs by Dick Durrance II
ROMANIA: MAVERICK ON A TIGHTROPE 688
By William S. Ellis, with photographs by Winfield Parks
MANITOBA'S FANTASTIC SNAKE PITS 715
By Michael Aleksiuk, with photographs by Bianca Lavies
JOIN THE CURIOSITY CROWD ON NATIONAL GEOGRAPHIC'S TRAIL OF ADVENTURES! 724
National Geographic Children's Series: *Cowboys, A Day in the Woods, Tricks Animals Play, The Wild Ponies of Assateague Island*

DECEMBER 1975

EDITOR'S PAGE 727
THE MAYA
I—CHILDREN OF TIME 729
By Howard La Fay, with photographs by David Alan Harvey
II—RIDDLE OF THE GLYPHS 768
By George E. Stuart, with photographs by Otis Imboden
III—RESURRECTING THE GRANDEUR OF TIKAL 792
By William R. Coe
IV—A TRAVELER'S TALE OF ANCIENT TIKAL 799
A portfolio of paintings by Peter Spier, with text by Alice J. Hall
CAN WE HARNESS THE WIND? 812
By Roger Hamilton, with photographs by Emory Kristof
RAFTING DOWN THE YUKON 830
By Keith Tryck, with photographs by Robert Clark
IOWA'S ENDURING AMANA COLONIES 863
By Laura Longley Babb, with photographs by Steve Raymer

Index VOLUME 148 JULY-DECEMBER 1975

July	pp.	1-150	October	pp.	443-582
August	pp.	151-298	November	pp.	583-726
September	pp.	299-442	December	pp.	727-878

Titles and illustrations in bold face

A

A. D. Makepeace Company: Cranberry harvest **54-55,** 59, 64
Abu Dhabi (city), Abu Dhabi: ***The Arab World, Inc.*** By John J. Putman. Oct., pp. 494-533
Aerial views: 1960 **498;** 1975 **499**
Agricultural research **527**
Banks 508, **530-531**
Construction 498, 504, 507-508, **510-511,** 525
Director of Town Planning 504, 507, 525
Fast-food restaurant **496-497**
Foreigners 507-508
Park **526**
"Sports City" 504; Model **524**
"Summit Conference City" 507
Television: Broadcast **522-523**
Water, desalinized 526
Abu Dhabi (sheikhdom), U.A.E.: ***The Arab World, Inc.*** By John J. Putman. Oct., pp. 494-533
Agricultural research 526, **527**
Bedouin **510-511, 522-523**
Foreigners 508; Laws concerning 507-508; Number of 508
Government 508 *see also* Sheikh, *below*
History 498, 504; Coup (1966) 504, 515
Homes, government-built **510-511**
Income, annual: 1930's 498; 1975 508
Investments 508
Oil revenue (1974) 508
Population 508
Sheikh: Former 498, 504; Present 498, 502, 504, 507, 508-509, 515
Trade, foreign 508
Wages 508
Acid leaching: Coal mines 234, 240, 241, 243
Adams, Abigail **476,** 477-479, 493; Letters 476, 477, 478, 479
Adams, John 476, 477, 478
Adams, John Quincy 477
Adz **86, 592**
Africa: Crop destruction by birds 10-11; Drought 9, 13, 16; Famine 16; Grain staples **18;** Land lost to tsetse fly 24; ***The Niger: River of Sorrow, River of Hope.*** By Georg Gerster. Aug., pp. 152-189; The Sahel, restoration of 16-17
Agricultural operation: Amana Colonies corporation 864, 876, 878, granary **874-875,** income 871, 875, livestock 871, 875, 878, swine **874-875**
Agricultural research: Abu Dhabi, U.A.E. **527; *Can the World Feed Its People?*** By Thomas Y. Canby. July, pp. 2-31
Aguilar, Gerónimo de 765
Ahpo Hel, Lady (Maya) 760, 783
Aikman, Lonnelle: ***Patriots in Petticoats.*** Oct., pp. 475-493
Air accidents: Bird-airplane collisions 138, 144
Air lift (salvage equipment) **264, 268,** 272, 273
Air turbines *see* Wind turbines
Akins, James E. 532
Alabama:
Alabama, Dixie to a Different Tune. By Howard La Fay. Oct., pp. 534-569
Piedmont and Plain of Romantic Charm. Oct. supplement (534A)
Agriculture **560-561;** Changes 534, 536, 539, 550, 558, 562
Birds 542, 545, **558**
Blacks **546-548, 552-553,** 558, 560, **561,** 562, **568,** 569
Capital (Montgomery) 547, 550, 557
Delta region 542-543, 545
Diet 543, 545, 560, 562, 569
Facts and figures 550
Fishing **538-539;** Shellfish 542, 543, **545**
Flag **550**
Governor **540, 541**
History 539, 547, 550, 557, 558, 560, 564, 569
Hunting: Clubs **565;** Possums 534, 536
Industries **542-543, 556,** 563; pollution from 545, **554,** 555, control **554-555,** 556; Transition 534, 536, 550, 558
Maps 534A, 550
Poverty 536, 558, 560
Religion 550, 552, 555, 560, **568**
Al Ain, Abu Dhabi 498, 504, 507
Alaska: Christmas, Russian Orthodox 853, **858-859,** 859, star **858;** Fourth of July celebration **837;** Gold mining 843, 846, 851; History 836, 837, 852, 859; Whistling swan breeding grounds 135, **136,** 137, **137,** 143, 147, map 139; *see also* McNeil River State Game Sanctuary; Yukon River, *outlined*
Alaska Department of Fish and Game: Brown bear study 433, **434-435,** 442
Albany Plan of Union 104
Albino animals: Gorilla **149B**
Albuquerque, N. Mex.: Wind-turbine testing **817**
Aleksiuk, Michael **716; *Manitoba's Fantastic Snake Pits.*** Nov., pp. 715-723
Algonquin Indians: Canada 206
Alhadji Musa Muhammadu Kigera III, Emir of Borgu 186
Al-Hamad, Abdlatif Y. **514,** 523, 527
Aliens, illegal: United States: Chinese (1882-1940's) 630-631
Al-Kharafi, Nasser 526-527
Allard, William Albert: ***Chinatown, the Gilded Ghetto*** (San Francisco, Calif.). Nov., pp. 627-643
Allen, Gordy 141, 142
Allison, H. Jack 825
Almirante Bay, Panama 615, **623**
Almirante Brown (Argentine station), Antarctica 221, 224, 227
Alston No. Four Mine, Peabody Coal Company: Kentucky 244
Al-Tajir, Mohammed Mahdi **514,** 532
Altar de Sacrificios, Guatemala: Vase painting from **774-776**
Álvarez Lomeli, Cristina **769**
Alvin (submersible) 46
Amana (village), Amana Colonies, Iowa 864; Meat shop **869**
Amana canal, Amana Colonies, Iowa **867,** 872
Amana Colonies, Iowa: ***Iowa's Enduring Amana Colonies.*** By Laura Longley Babb. Dec., pp. 863-878
Agriculture 864, 876, 878; Granary **874-875;** Income 871, 875; Livestock 871, 875, 878, swine **874-875**
Area 864, 866
Business corporation (Amana Society) 866, 871, 875
Cemeteries 869, **871**
Churches 869, 871, **876-877**
Community spirit 866, 878
Dress 864, 869, 876
Employment of "outsiders" 871, 875, 878
History 863, 866
Industry: Refrigeration plant 863, 871, **872,** 876; Woolen mill 866, 871, **872**
Map locating 864
Population 863, 872
Religious life 866, 869

Schools 864
Shops **868-869,** 871
Tourists 863, 871, 872
Villages 864, **864-865**
Wineries 871, 874
Amana Refrigeration, Inc. 871, 876; Radarange assembly **872**
America, Naming of 616, 624
American Foundation for the Blind 681
American Gas Association 249
American mainland: Columbus's landing 612; First map (1500) **605-607**
American Philosophical Society 98
American Revolution: French aid 109, 112, 114, 116, 118, 120; Leaders *see* Franklin, Benjamin, *outlined*; ***Patriots in Petticoats.*** By Lonnelle Aikman. Oct., pp. 475-493
Alliance with France 482
Battles 476, 477, 482, 483, **483-485,** 484, 486, 488, 489, 492, 493
Civil strife in the South 488, 492
Continental Army: Foreign officers 480, 482; Hardships at Valley Forge 480, 482
Freedom of the press 493
Indians: British allies **487,** 488, 489
Tories 478, 479, 480, 488, **491,** 492
see also Women of the Revolution, *outlined*
Amidon, Douglas 45
Among Alaska's Brown Bears. By Allan L. Egbert and Michael H. Luque. Sept., pp. 428-442
Ancestor worship: South Korea 408, 415
Andaman Islands: ***The Last Andaman Islanders.*** By Raghubir Singh. July, pp. 66-91
Andersen, Hans Christian: Letters 681
Andrews, E. Wyllys, IV 733
Animals: Anesthetizing of 433, **434-435,** 442; Animal studies *see* Brown bear; Garter snake; Orangutan; Threatened: Orangutan 448, 449, 455, international effort to save 458; Tracking of *see* Brown bear; Garter snake; Whistling swan
Ansongo, Mali: Hippopotamus hunt **172-173,** 177, 181
Antarctic Regions: **Ice Bird *Ends Her Lonely Odyssey.*** By David Lewis. Aug., pp. 216-233
Antarctica: Wind-generated electricity 824
Anthracite 235, 239, 240, 248; Deposits (map) 244; Production 239
Antigua Guatemala, Guatemala 732
Antique shop: Toronto, Canada **191**
Antunovich, George and Stella **325**
Apes *see* Orangutan
Appalachian Mountains, U.S.: Alabama **566-567**
Apprenticeship system: Colonial America 95
Apricots: Hunza 664, 665, paste **665,** seed-oil fuel 664, 665
Aquiculture 25; Israel **25**
Arab nations: ***The Arab World, Inc.*** By John J. Putman. Oct., pp. 494-533; Oil wealth 443
Arabian American Oil Company 519
Arabian Gulf *see* Persian Gulf
Arabian Peninsula: ***The Arab World, Inc.*** By John J. Putman. Oct., pp. 494-533
Arawak Indians 609, 610
Archeology: ***The Maya.*** Dec., pp. 729-811; South Korea: Tomb excavation **418-419;** West Indies: First Spanish settlement 610-611
Architecture: Edwardian **191, 194-195, 204-205, 210-211,** 211; Japanese 556, **557;** *see also* The Maya
Arden, Harvey: ***The Pious Ones*** (Hasidic Jews). Aug., pp. 276-298
Argentina: Antarctic base 221, 224, 227
Arid Lands Research Center, Abu Dhabi: Greenhouse **527**
Arkansas: Flood (1927) 312-313; ***An Ozark Family Carves a Living and a Way of Life.*** By Bruce Dale. July, pp. 124-133
Arkansas City, Ark. **314-315;** Flood (1927) 312-313
Arnberger, Leslie 58
Art *see* The Maya; Wood carving
Arthur, Harris 248
Artisans: Cape Cod, Mass. 45-46; Koreans, ancient 394, goldwork 394, **419;** ***An Ozark Family Carves a Living and a Way of Life.*** By Bruce Dale. July, pp. 124-133
Asia: ***Can the World Feed Its People?*** By Thomas Y. Canby. July, pp. 2-31; Wildlife *see* Orangutan; *see also* Andaman Islands; Arabian Peninsula; Bangladesh; Karakoram Range; South Korea
Aslan, Ana 704
Astronomy: Antiquity of 727; Maya 729, 735, 736, 738, 749, 763, 766, observatory 766, **766**
Athapaskan Indians **850,** 851-852
Atlantic Richfield Company: Prudhoe Bay: Whistling swan protected by 143, 147
Atlas of the World (NGS): Publication of Fourth Edition announced 583
Auburn University, Ala.: Wildlife research 539
Audubon, John James: "elephant folio" (American birds) **680**
Augpilagtoq, Greenland **366-367**
Auray, France **114-115**
Autochromes, Lumière 299, **301**
Automobile showroom: Riyadh, Saudi Arabia **533**
Avendaño (Spaniard) 738
Avondale Shipyards, New Orleans, La. **320-321**
Azores (islands): Columbus 600

B

Baal Shem Tov, Israel ben Eliezer 286, 289, 290, 292
Bab al Mandab (strait), Red Sea-Gulf of Aden 338, 341
Babb, Laura Longley: ***Iowa's Enduring Amana Colonies.*** Dec., pp. 863-878
Bache, Sarah Franklin 98, 101, 122, 476
Bagpipes: Sharjah **506**
Bahamas: Columbus 595-596, 597
Bahrain: Travel agent **528;** Women's police corps trainees **529;** Women's rights 529
Băile Herculane, Romania: Baths **702,** 703-704
Bailey, "Mad Anne" 488
Bakeries: Amana Colonies, Iowa **868,** 871, 876
Balaci, Dumitru 710
The Balkans *see* Romania
Ball, Joseph W. 733
Ball game, Maya 749-750, **810-811;** Sculpture of player **748**
Ballard, H. E. 213
Ballard, Robert D. 46
Ballard, William O. 213
Baltimore, Md.: American Revolution: Woman editor-printer 493, **493**
Baltis (people): ***Trek to Lofty Hunza—and Beyond.*** By Sabrina and Roland Michaud. Nov., pp. 644-669
Diet 662, 666, 668
Dress 665, 666
Farming **662-663**
Hunting 668
Religion 665
Stamina 661
Women 666
Baltistan (region), Kashmir: ***Trek to Lofty Hunza—and Beyond.*** By Sabrina and Roland Michaud. Nov., pp. 644-669
Baltit, Hunza 646, 668; Irrigation system 664; Village life 664-665
Baluchi mercenaries: Oman **507,** 516
Bambara (tribe): Mali 171, women **156-157**
Bancroft, Edward 118
Band concert: Chatham, Mass. **60-61**
Bangladesh 2, 14, 29; ***Bangladesh: The Nightmare of Famine.*** By Steve Raymer. July, pp. 33-39
Black market 33
Capital *see* Dacca

Corruption 33, 39
Economy 33
Famine 33, 34, 37
Flood (1974) 33
Government 33, 39
Independence, war for 37
Population 33; Birthrate 39; Density 39
Poverty 33, 34, 39
Rations 33, **35,** 36
Refugees **32,** 33, **34-38;** Camps **32,** 33, 34, **38-39**
Relief aid for 33, 34, **36-37**
Size 33
Smuggling, rice 33
Bank of Oman, Abu Dhabi **530-531**
Banks, Cleveland 313
Baptism: Tuscaloosa, Ala. **568**
Baptist Church: Alabama 552, 560
Bar mitzvah: Meaning of term 284
Barcelona, Spain: Columbus, reception of 600, 601
Barker, Randolph 29
Barley **18-19, 662;** Winter barley: South Korea 397, 415
Barnhisel, Richard 241
Barnstable County, Mass. 58; Fair **56-57**
Barré, Isaac 109
Barrera Vásquez, Alfredo 746, 749, 762
Barry, "Kate" Moore 489, 492
Barthel, Thomas 791
Bartlett, Linda, photographer: ***Benjamin Franklin, Philosopher of Dissent.*** July, pp. 93-123
Bashmi, Wahida **528**
Bass River Rod and Gun Club: Yarmouth, Mass.: Clambake **61**
Baths, mineral: Romania **702,** 703-704
Bay Psalm Book: Library of Congress 677
Bayou La Batre, Ala. 542, 545
Bears: Grizzly 428; North American species 428; *see also* Brown bear, *outlined*
Beaumarchais, Caron de 114; Mansion **118**
Becan (Maya ruin), Mexico 733
Beckley, W. Va.: Coal-dust diseases laboratory 253, 258
Bedouin: Abu Dhabi **510-511, 522-523;** Dubai 515
Beethoven, Ludwig van: Score written by **682**
Beetle, pothole 576, **576-577**
Belize: Maya sites 732, map 736-737
Bell, Alexander Graham: Papers 674, **679;** Phonograph record, development of 681; Telephone, invention of 328, Mark Twain's opinion of 328-329
Bell, Martha 477
Bell, Whitfield 98
Bellas (people): Mali 177, **180, 181**
Bengal, Bay of *see* Andaman Islands
Bengalis (people): Famine 2, **3, 32-39**
Benjamin Franklin, Philosopher of Dissent. By Alice J. Hall. July, pp. 93-123
Benn, Nathan, photographer: ***The Pious Ones*** (Hasidic Jews). Aug., pp. 276-298
Bennett Lake, Canada 831, 834, **834-835,** 835, 836, 840, 860
Berg, Alan 23
Bergey, Karl H. 828
Bering Sea: Frozen 860, **860-861**
Berlin, Heinrich 788
Bernhardt, Tony 147
Beulah, N. Dak.: Strip mining and farmland 249, 253
Bhagana (East Indian) 2
Bible: Early editions: Library of Congress 674, 685
Biblioteca Colombina: Seville, Spain 616
Bicentennial, U. S.: NGS Observances: Film series 493; ***For Our Bicentennial . . . Relive the American Adventure*** (*We Americans* announcement). Oct., pp. 580-582; *see also below*
Bicentennial series: ***Benjamin Franklin, Philosopher of Dissent.*** By Alice J. Hall. July, pp. 93-123; ***Patriots in Petticoats.*** By Lonnelle Aikman. Oct., pp. 475-493
Big C Possum Ranch, Ala. 534, 536
Bird Jaguar (Maya ruler) 732, **755, 788,** 789, 790
Bird-watching: Swans **141,** 146, 147
Birds **41;** Audubon book **680;** Banding 134, 135, **136,** 140, **140,** 141, **141,** 142-143, **145,** 146; Bird-airplane collisions 138, 144; Bird study *see* Whistling swan; Crop destruction: Africa 10-11, 169; Falcon **610;** Gulls **558,** herring gull **43;** Hummingbird, purple-throated Carib **587;** Queleas **10-11;** *see also* Whistling swan, *outlined*
Birmingham, Ala. 547, 550, 563; Civic center and performers **552-553;** Hospital 563; Pollution **554,** 555, control **554-555,** 556
Bituminous coal 235, **236-237,** 239, 240, 241, 244, 248; Deposits (map) 244
Bixby, Horace 306, 308, 311
"black belt" (dark-soil band): Alabama **538-539,** 558
Black Fire (dance company): Birmingham, Ala. **552-553**
Black lung diseases 240, 255, 258; Death rate 255; Disabled, number of 255
Black market: Grain 15, 17, 33
Black Mesa Pipeline Company, Ariz.: Pipeline **246**
Black Sea resorts: Romania 709-710
Blackwater National Wildlife Refuge, Md. **140,** 141, 142
Blair, Archibald 76
Blair, James P., photographer: ***Cape Cod's Circle of Seasons.*** July, pp. 40-65; ***Will Coal Be Tomorrow's "Black Gold"?*** Aug., pp. 234-259
Blake, William: Illustrated book **685**
Blechschmidt, Rudy **873**
The Blind: Library of Congress services **676,** 681
Boatbuilding: Canoe, dugout **86, 592-593**
Boats: Barges **378-379;** Dory **56;** Dugouts 81, **86,** 87, **90-91, 592-593,** 615, **621;** Kayak **370;** ***Mark Twain: Mirror of America.*** By Noel Grove. Sept., pp. 300-337; Pirogues **163-165, 172-173,** 177, 181; Shrimp cutter **388;** Sloops **48-49** *see also Ice Bird;* Stern-wheelers **844-845**
Bobadilla, Francisco de 613
Bogdan, Răileanu 704
Boll weevil: Monument to **562**
Bonampak (Maya ruin), Mexico 735, 738
Bonanza Creek, Canada: Gold, discovery of 837, 843
Book of Hours: Library of Congress **672-673,** 674, 685
Books *see* Books, NGS; Library of Congress; Literature
Books, NGS: Children's series: *Cowboys, A Day in the Woods, Tricks Animals Play, The Wild Ponies of Assateague Island* 724-726; *Research Reports 1890-1954* (compiled and edited by Paul H. Oehser) 442; *We Americans* 580-582
Borges, João 272
Borgstrom, Georg 22, 24
Borlaug, Norman E. 9, 13, 14, **23,** 28, 31
Borneo, Indonesian *see* Tanjung Puting Reserve
Boston, Mass. 93, 94, 95; American Revolution: Women patriots 476, **476,** 477-479, **489,** 492-493; Colonial newspapers 95, 97-98; Franklin birthplace 93
Boston Latin School 94, 123
Boswell, Victor R., Jr. **776**
Bows and arrows: Negritos 66, **66-71,** 75, 90, fishing with 81, 86
Boyle, W. A. "Tony" 257
Bozos (people): Mali 169
Brady, Nyle C. 28, 29
Brady, Pete 843
Braille books: Library of Congress 677, 681
Branco, Thomas 53
Brâncuşi, Constantin 709
Brasseur de Bourbourg, Abbé 770
Brautigan, Richard 317
Bread: Chapaties 2, **35, 78,** 82, 83, 652; Hasidic Jews **286-287, 291,** unleavened 292; Hearth-baked: Amana Colonies **868,** Ozarks **128, 129,** recipe 128; Tortillas 739, 742, **742**

Breast feeding 23; Economics of 23
Brewster, Mass. 42, 46; Cranberry harvest 59, 64
Bridges: Hanging: Karakoram Range 647, **648;** Supporting Trans-Alaska pipeline 848
Brillon, Mme 118
Brindamour, Rod, photographer: ***Orangutans, Indonesia's "People of the Forest."*** Oct., pp. 444-473
British Antarctic Survey: Personnel 229, 230
Broberg, Niels Peter **391**
Brogan, D. W. 536
Brooklyn, N.Y.: ***The Pious Ones*** (Hasidic Jews). By Harvey Arden. Aug., pp. 276-298
Brown, Lester R. 25, 26
Brown, Michael 313
Brown bear *(Ursus arctos)*: ***Among Alaska's Brown Bears.*** By Allan L. Egbert and Michael H. Luque. Sept., pp. 428-442
Age, ascertaining of 434, **435**
Boars 428, 433, **434-435,** 438, 440, 441, 442
Diet 428, 431, 433, 436, **436, 437,** 438, **439,** 440, 441, 442; Foraging, miles covered in 433, 434
Dominance determined by size 431, 433, 438, 440, 441
Ferocity of adults 428, 431, 438, 440, **440-441,** 441; Attacks on humans 441-442
Hibernation: Birth of cubs 432, 438; Periods preceding and following 436, 438
Hunting of 434, 442
Invasions into human habitations 433, 442
Nonterritorial and nongrouping 431, 433
Play 440-441
Population 442; Increasing 442
Protection of 433, 434, 440, 442
Range of 428; Map 431
Salmon fishing 428, **430-431,** 433, **436-437,** 438, **439,** 440, 441
Size; weight 428, 438; Compared to inland grizzly 428
Sows 428, **430,** 431, **432,** 433, 434, 438, 440, **440-441,** 442
Study of 428, 433, 442; Danger involved 428, 431; Organizations supporting 428, 433; Tracking and identification systems used 433, **434-435**
Vision 433
Young 432, 433, **436-437,** 438, **439,** 440-441; Cubs 428, **429,** 431, **432,** 438, 442, killing of by adult males 438, 440, 442, weight at birth 432, 438
Brugmann, Bruce 319, **329**
Brûle, Étienne 206
Brunswick House (beer hall), Toronto, Canada 204
Bryant, Paul "Bear" **549**
Bryson, Reid 16
Buber, Martin 290
Bucharest, Romania 692, **692, 694-696,** 698, 701, **705,** 709, 710; Institute of Geriatrics **703,** 704-705; World population conference 17
Buddhas (statues): Popchu, South Korea **403,** 427
Buddhism: South Korea 408, 414, 427; Popchu temple **402-403**
Burial customs: Islamic 494; South Korea **416-417**
Burial mounds: South Korea 394, **418, 419**
Burian, Rudy and Yvonne 841
Burke, Edmund 109
Burney, Dan 677
Burushos (people) 654
Buseşti, Romania 688
Business corporation: ***Iowa's Enduring Amana Colonies.*** By Laura Longley Babb. Dec., pp. 863-878
Busing of school children: Opposition to 631
Bussa, Nigeria 167, 186
Bussawa (tribe): Nigeria 186
Butter, John 508

C

CARE: Colombia: Nutrition campaign 22
CN (Canadian National) Tower, Toronto 190, **193, 202-203**
Cable car: San Francisco, Calif. **629**
Cabot, John 605, 616
Cacao: Maya currency 808
Calculators, electronic **406-407**
Calendars, Maya 727, 729, 731, 732, 735, 736, 737, 749, 763, 770, 772-773, **777-780,** 785, 789-790, 791, cover ill.; Diagram **783**
California: Mark Twain 317, 319, 321, 329; *see also* San Francisco
California Institute of Technology, Pasadena: Windmill engineering 814
Calories, food: Importance of 18, 22, 26
Camden, Ala. 558; Courthouse **546,** 562; Plantation near **551**
Camera, shutterless: Diagram 773; Photographs taken with **772-776**
Campbell, Charles, family **200**
Can the World Feed Its People? By Thomas Y. Canby. July, pp. 2-31
Can We Harness the Wind? By Roger Hamilton. Dec., pp. 812-829
Canada: Bangladesh, aid to 33, 36; Gold rush 831, 836, 837, 843, 844, 845; Grain trade, international 13; Livestock breeding 22; Whistling swan 137, 141, 142, 143, 144, 146, 147; *see also* Toronto; Yukon River, *outlined*
Canadian National Exhibition, Toronto **192-193,** 201
Canby, Thomas Y.: ***Can the World Feed Its People?*** July, pp. 2-31
"cannibal," origin of word 602
Cannibals, New World 602, 609; 1621 engraving **586-587**
Cannon, Howard W. **675**
Canyonlands National Park, Utah: Pothole study **572, 573**
Capastraru, Nicolae 688
Cape Cod, Mass.: ***Cape Cod's Circle of Seasons.*** By Tom Melham. July, pp. 40-65
Beaches 40, **42-45,** 51, 58
Boats 47, **48-49, 56, 62-64**
Cranberry growing 44, **54-55,** 59, 64
Creative residents 45-46, 59
Entertainments **56-57, 60-61**
Fishing 46-47, 53
Growth 58
History 47, 51, 59
Map 51
Population: Permanent 51, 58; "summer people" 40, 51, 57, 58
Cape Cod Bay, Mass. **42-43,** 59; Seal **50**
Cape Cod National Seashore, Mass. 58
Capetown, South Africa 233, **233**
Caracol (observatory), Chichén Itzá, Mexico 766, **766**
Carcross, Canada 836, **840**
Card games: Cribbage **856;** Pinochle **830-831;** Poker **565**
Carib Indians 602, 609, 623
Caribbean region: ***Christopher Columbus and the New World He Found.*** By John Scofield. Nov., pp. 584-625
Carlisle, Ernest, III **565**
Carmack, George Washington 837
Carmacks, Canada 837
Carnegie, Andrew **256**
Carver, George Washington 562
Casey, Phil **124**
Cassava **19**
Catherwood, Frederick 772
Catholics: South Korea **398,** 399, 405, 427
Cats, domestic **312-313;** Orangutan's handling of **454, 455, 468**
Cattle: Charolais **22;** Embryo transplanting 2, 22; Herefords **14-15**
Cattle raising: Alabama 536, 539; Japan **14-15;** Rotational grazing 17; The Sahel 16-17
Caves, underwater: Red Sea **339,** 343
Ceauşescu, Nicolae 693
Cemeteries: Amana Colonies, Iowa 869, **877;** Merry Cemetery, Săpînţa, Romania 699, 701; Old Indian Church, Mashpee, Mass. 65
Cen Balam, Domingo **767**
Cenote: Chichén Itzá, Mexico 750
Centenarians: Hunza **652, 655,** 664

Central America: Columbus's landing (1503) 615
Central Pacific Railroad: Chinese labor 630
Chac (Maya rain god) 738, 739, 750, 763, 766, **779-780, 787,** 802
Chad: Drought 16
Chamber Zeeland (group): Dutch East India Company 266, monogram **269,** 272
Chamula, Mexico 783; Carnival rites **734-735**
Chan, Luke **637**
Chan-Bahlum (Maya ruler) **782,** 783
Chanca, Diego Alvarez 609
Chandler, Robert F., Jr. 26, 29, 31
Chandler Mountain, Ala. 566
Chapursan (valley), Hunza 661
Charles V (Holy Roman Emperor) 772
Chatham, Mass. 40, 44, 58; Band concert **60-61;** Fishermen 47, 53; Fourth of July parade **56-57;** Pub 47
Cheaha Mountain, Ala. **566-567**
Cheerleaders: Alabama football game **548**
Cheju (island), South Korea 415, 420, **420-423**
Chemnitz, Lars 381
Chesapeake Bay: Ecosystem, changes in 139; Whistling swan 135, 137, **138-139,** 139, **143,** 146
Chiapas (state), Mexico: Map 737; Maya 733, **734-735,** 750 *see also* Bonampak; Palenque; Yaxchilán
Chicago, Ill.: Coal gasification plant **249**
Chichén Itzá (Maya ruin), Mexico 732, 750, 755; Observatory 766, **766;** Rain ceremony **767**
Children: Corrective surgery for 212, 215, 563-564; ***Start the World, I Want to Get On!*** (WORLD magazine announcement). July, pp. 148-150; *see also* Books, NGS
Chilton County, Ala.: Possums 534, 536
Chimpanzee **150**
China (pre-1950): Famine 13; 19th-century conditions in 629
China, People's Republic of: Agricultural research 13; Coal deposits 244; Food reserves 13; Grain deals with U. S. 6; Pakistan border; Road signs **660,** 661; Population 13, control 13
Chinatown, San Francisco, Calif.: ***Chinatown, the Gilded Ghetto.*** By William Albert Allard. Nov., pp. 627-643
Area 628
Benevolent organizations 633-634, 637, 639, 640, 641, 643
Businesses 629, **632,** 633, **634, 636-637,** 641; Grant Avenue **633**
Chinese-language school 631, 634; Graduates **626-627**
Crime, upsurge in juvenile 630, 639
Cuisine **636-637,** 641; Chinese-cooking school **636**
Cultural changes taking place 627-628, 630, 634; Guards against 627, 631-632, 634
The elderly 627, 628, 630, **640,** 643; Programs for 640, 641
English-language difficulties 628, 630, 632, 641; Educational programs alleviating 639, 641
Hardships of the people 629, 630, 632-633, 634, 639, 640, 643
History 628, 630
Housing 629, 632, 639, **640,** 643
Immigration; immigrants: 1965, influx since 627, 628, 632, 639, organization aiding 643, rejection of by established community 630, 639; 19th century 628, 630, events precipitating 629, illegal immigration 630-631
Occupations, past and present 629, 630, 631, 632, 633, **637,** 639, 641; Garment-factory sweatshops 633, **634**
Population 628-629; Density 629, 633
Professional class 634, 639
Restaurants **636-637,** 641
Second Chinatown being established 633, 634
Tourist attractions 628, 641
Unemployment 629, 632, 639; Program to combat 639, 641
Women, working: Laboring class 633, **634**
Youth; children **626-627, 631,** 632, 633, 634, **634, 635,** 639
Chinese: Karakoram Highway construction crews 657, 661, provisions for **660**
Chinese cooking 637, 641; Food display **636-637;** School **636**
Chinese districts *see* San Francisco, Calif.; Toronto, Canada
Chinese Exclusion Act (1882) 630
Chinese-language school, San Francisco, Calif. 634; Graduates **626-627**
Chinese Turkistan *see* Sinkiang
Choctaw Bluff Club: Alabama: Fishing **538-539**
Chow, George 641
Chowdhary, Vasant 81, 82, 87
Choy, Philip 629, 639
Christ Church, Philadelphia **97, 101,** 122
Christians: South Korea **398,** 399, 405, 408, 413, 427
Christiansted, St. Croix (island): Museum 609
Christmas: Date of celebration, origin of 727; Russian Orthodox: Alaska **858,** 859, **859**
Christopher Columbus and the New World He Found. First Voyage: *Westward to Cipangu!;* Second Voyage: *Triumph, Then Tragedy;* Third Voyage: *Home in Disgrace;* Fourth Voyage: *Rain, Worms, Shipwreck.* By John Scofield. Nov., pp. 584-625
Chung, Richard 630-631
Cinesphere, Ontario Place, Toronto, Canada **193**
Cipriani, Lidio 71, 81
Cişmigiu Gardens, Bucharest, Romania **696,** 709
Civil rights: Alabama blacks 547, 562, 569
Civil War, U. S.: Alabama 550, 557, 564
Clambake: Cape Cod, Mass. **61**
Clark, Basil 534, **535,** 536
Clark, Eugenie **342; *The Strangest Sea*** (Red Sea). Sept., pp. 338-343
Clark, Robert **830, 856;** photographer: ***Rafting Down the Yukon.*** Dec., pp. 830-861
Clarkson, Christopher 678, 681
Clemens, Clara 299, 322, **331**
Clemens, Henry 329
Clemens, Jean 322, 329, **331**
Clemens, John 304, 329
Clemens, Langdon 322, 329
Clemens, Olivia Langdon 321-322, 323, 329, **331,** 335
Clemens, Samuel Langhorne *see* Twain, Mark
Clemens, Susy 322, 326, 329, **331,** 335; Quoted 322, 335
Clench, Mary 138
Clews, Henry **815,** 816, 820
Climatic changes 1, 4, 5, 16, 23
Clocks, grandfather **873**
Coal: ***Will Coal Be Tomorrow's "Black Gold"?*** By Gordon Young. Aug., pp. 234-259
Anthracite 235, 239, 240, 248; Production 239
Bituminous 235, **236-237,** 239, 240, 241, 248
Carbon content 239
Deposits: U. S. 235, 248, map 244; World's major 244
Energy source 234, 235, 259
Formation of 239, 244
Gasification 235, 248-249, 253; Methane content 248, 249; Plant **249;** Water requirements 249
Lignite 235, 248
Liquefaction 235, **246,** 253; Hydroliquefaction 253; Water requirements 246, 253
"peacock" **234-235**
Pollution, coal-related: Air 235, 246, 248; Land 249, 253; Water 240, 241, 243
Reserves (U. S.): Estimated 235, 242; Recoverable 235, 242
Sub-bituminous 235, 248
Transport of 248; Pipeline **246,** 248; Train **243, 246-247,** 248

XUM

Coal miners: ***Will Coal Be Tomorrow's "Black Gold"?*** By Gordon Young. Aug., pp. 234-259
Black lung diseases 237, 240, 255, 258; Victim of **254**
Deaths, accidental 239
Hazards 243, 257; Dust 236-237, 244, 255, 258; Methane 239, 240; *see also* Black lung diseases, *above*
History 240, 256-257; Depicted **256-257**
Job conditions 235, **236-239,** 240, 258
Life style **255**
Pride 240, 255
Union 258-259; History 256-257; Members **258-259**
Coal mines: Alabama **543;** ***Will Coal Be Tomorrow's "Black Gold"?*** By Gordon Young. Aug., pp. 234-259
Acid and mineral leaching 234, 240, 241, 243, 249, 253
Anthracite 239-240, 244; "culm" 241
Bituminous **236-237,** 240, 241, 244; "gob" 241
Closed 239-240
Cutaway painting **242-243**
Deep-mining techniques: Longwall 242, 244, diagrams **242;** Room-and-pillar 242, 244, diagram **242-243**
Descriptions 235, 240, 244
Dust 236-237, 244, 255, 258; Explosive 236; Federal controls of 258
Legislation concerning 240, 258
Machinery **236-238,** 244; Diagrams **242-243**
Methane 239, 240
Operators 237, 239, 240, 241, 248
Processing plant: Diagram **242-243**
Safety measures 236-237, 240, 243, 255, 258; Lamp, safety **238-239,** 240; Research 258
Strip mines *see* Strip mining, *outlined*
Water problems 239-240, 243
Cobá (Maya ruin), Mexico 773, 785; Pyramid **790;** Stela 791, **791**
Coburn, Alvin Langdon 299
Cochran, William W. 140, 141, 142, **144**
Coconuts: Little Andaman Island **81**
Codlea Co-op Farm, Romania 710, 712
Coe, Ann **757**
Coe, William R. 757; ***The Maya: Resurrecting the Grandeur of Tikal.*** Dec., pp. 792-798
Coins: Orangutan-conservation issue (Indonesia) **458;** Silver, 18th-century **261,** 269, **270-271**
Colboc, Henri 525
Collinsville, Ala.: Trade Day 564, 569
Colombia: Gold artifacts **590, 617, 625;** Indians: *yopo* sniffing **623;** Land-development study 28; Malnutrition 22; Peace Corps program 22-23
Colonial America: ***Benjamin Franklin, Philosopher of Dissent.*** By Alice J. Hall. July, pp. 93-123
Columbus, Bartholomew 611, 613
Columbus, Christopher: ***Christopher Columbus and the New World He Found.*** By John Scofield. Nov., pp. 584-625
Accomplishments 612; Significance of 616
Administrator of colony 610, 611, 613
Biographers *see* Columbus, Ferdinand; Morison, Samuel Eliot
Brothers 611, 613, 616
Colonization 598, 602, 610-611
Contemporary explorers 602, 616, 624
Death 602, 616
Gold, quest for 590, 597, 598, 600, 601, 609, 610, 611, 615
Honors and titles 600-601, 602; Loss of 613, 616, 618, 624
Indians, contacts with 595, 609, 610, 611, 612, 615; Battles 598, 609, 615; Captives taken 600, 601, 602, 609, 610
Navigational skills 597, 602, 612, 614
Portraits: Artists' conceptions **618, 619**
Portugal, experiences in 596, 600
Ships **584-585,** 596, 597, 598, 599, 600, 602, 609, 612, 614, 615, 616
Signature **625**
Sons 596, 597, 602, 613, 614, 616, 624
Theories and studies, geographical 595, 596, 597-598, 599, 612, 614, 623
Voyages and discoveries: Maps of 595, 602, **605-606,** 612, 614
Wealth 614, 616
Columbus, Diego (brother of Christopher) 611, 613, 616
Columbus, Diego (son of Christopher) 602, 613, 616, 624
Columbus, Ferdinand 596, 602, 613, 614, 616; Biography of father: Excerpts 597, 598, 602, 613, 614, 615, 616
Commons, House of 108; "the American problem" 109-110
Communications tower: Toronto, Canada 190; **193, 202, 203,** statistics 202
Computer applications: Glyph analysis **769;** Legislative data **675**
Concentration camps, Nazi: Hasidic Jews 279, 289, 292, 298
Concorde, Place de la, Paris: Fountain **120**
Confederate States of America: Capital 557; Conscription 564
Confucius 408, 409
Congressional Research Service: Library of Congress **675,** 681
Connecticut: American Revolution 489; ***Mountains, Seacoast, and a Living Legacy.*** July supplement
Constitutional Convention (1787) 104, 122
Continental Army: French volunteers 116, 482; Women serving with 482-483, **483,** 484, 486, Army enlistee **485,** 486
Continental Congress, Second 104, 112
Continuous miner (machine) **236-238, 243**
Cook, Norman 58
Coolidge, Calvin 674
Coolidge Auditorium, Library of Congress **682**
Cooper, A. J. **547**
Cooper, Roland 562
Copán (Maya ruin), Honduras 732, 735, 757, 788; Sculpture **759**
Copyright Office and Processing Department: Library of Congress 682
Corals and coral reefs: ***Rainbow World Beneath the Red Sea.*** By David Doubilet. Sept., pp. 344-365; ***The Strangest Sea*** (Red Sea). By Eugenie Clark. Sept., pp. 338-343
Corbin, Margaret Cochran 482-483, 484
Cordeau, François 185
Corn 6, 9, 13, **18;** Crop yield 18, 24; Drought-seared **8;** Hybrids 18, 28; Maya **728-729,** 744, **751,** deities **729, 741, 779,** glyphs **741, 750, 766, 779;** Research 2, **9,** 28
Cornelius, Chip **548**
Cortés, Hernán 765, 772
Cosa, Juan de la: Map (1500) **605-607**
Cottage industry: ***An Ozark Family Carves a Living and a Way of Life.*** By Bruce Dale. July, pp. 124-133
Cotton farming: Alabama 560, **560-561,** 562, decline 539, 550, 558, 562
Coulter, E. Merton 486, 488
Coulter, John Breitling: Statue of 413
Counter-Infiltration Operations Command: South Korea 401
Cowan, Rex and Zélide 265
Cowpens, Battle of the 489, 492
Crafts: Sandwich, Mass. 45-46; *see also* Wood carving
Cranberries: Cape Cod, Mass. 44, harvest **54-55,** 59, 64
Cravioto, Joaquin **27**
Creole Belle (towboat) 306, 311, **320-321**

Crews, Paul, Jr. **830, 847, 849, 853**
Crombie, David 198, 204
Crop dusting: Alabama **560-561**
Crop losses, worldwide (1970's) 5, 7, **8**, 9, 10-11, 15, 16, 23
Cuba: Columbus's voyages 597, 599, 611
Cuna Indians **591, 592, 623,** cover ill.; Canoe carving **592-593**
Cunningham, Diane 201, 204
Currency: Designed and printed by Benjamin Franklin **102;** Maya 808; Orangutan-conservation coin issue (Indonesia) **458;** Silver coins, 18th-century **261,** 269, **270-271**
Curtsinger, William R., photographer: ***The Treasure of Porto Santo***. Aug., pp. 260-275
Custis, Eliza Parke 479
Custis, George Washington Parke 482
Custis, John Parke 482
Cyclone: South Atlantic **228-229,** 232-233
Czechoslovakia: Arms to U.A.E. 504, **505,** 515

D

Dacca, Bangladesh: ***Bangladesh: The Nightmare of Famine***. By Steve Raymer. July, pp. 33-39
Dacia (Romanian automobile) 692, 705
Dakar, Senegal: Dock **12**
Dale, Bruce: ***An Ozark Family Carves a Living and a Way of Life***. July, pp. 124-133
Dancers: Bedouin **523;** Birmingham, Ala. **552-553;** Calypso: Toronto, Canada **197;** Chung Ngai Group member **638;** Hasidic Jews **287,** 290; Mali **156-157,** 167
Danish Navy: Sirius Patrol: Greenland 381, **385,** camp **384**
Danube River, Europe 692, 709, **710-711;** Delta 693, 709, 710
Darragh, Lydia 477
Dávalos Gonzalez, Felipe 787
Davis, Jefferson 557
Dawson, Canada 841, 843, 846; Gold rush days 843, 844, 845
Declaration of Independence 674, 687; First printing 493, **493**
Deforestation: Flood and erosion, factor in 25-26
Deira (village), Dubai 509
Dejean, Bertrand 185
de la Roche, Mazo 210
Delauze, Henri 267
Delaware River, U. S. **96-97**
Delta Queen (paddle-wheeler) **302, 309,** 311
Dembéle, Koké 174
Demilitarized Zone, Korea 401, 414, **424-425**
Demonstrations: South Korea **398-399,** 405, 427, illegal 399
Denmark *see* Greenland
Denton, Ivan, family: ***An Ozark Family Carves a Living and a Way of Life***. By Bruce Dale. July, pp. 124-133
Desert: ***Miracle of the Potholes***. By Rowe Findley. Oct., pp. 570-579
Design, industrial: ***Can We Harness the Wind?*** By Roger Hamilton. Dec., pp. 812-829
Destiny (trawler) 47
Dhofar (province), Oman: Guerrilla war 516
Diamond cutters: Hasidic Jews **288,** 292
Diarra, Boubou 171
Díaz del Castillo, Bernal 738
Dick, Jeff 167
Dickens, Monica 45
Dienapo, Bayon 169
Diseases: Coal-dust diseases 237, 240, 255, 258; Primitive peoples 87, 88, 89; Tuberculosis 380, 391, 629, 634
Disko Bay, Greenland 381; Storm **388-389**
Divers: Korean fisherwomen 401
Diving expeditions *see* Red Sea; Salvage, underwater
"diving machine," 18th-century 262, **262, 263,** 265
Dobransky, Ted **236**
Dogs: Dog driving a car **149B;** Dog wrestling: South Korea 401; Hunting 534, 536, **565;** Little Andaman Island 83, **84-85;** Maya **765,** painting **764;** Orangutan and dog **466;** Sledge dogs: Greenland 367, **369,** 373, 374, 392, race, annual 374, 378
Dollarhide Camp hunting club: Alabama: Poker game **565**
Dombrosky, Eleanor **721**
Dominica (island), West Indies **588-589,** 602, 609, 621, **624-625;** Indians 602, 609, 624; Named by Columbus 588
Dominican Republic: History 598-599, 611, 613, 614, 616; Tobacco field **599**
Doubilet, David, photographer: ***Rainbow World Beneath the Red Sea***. Sept., pp. 344-365; ***The Strangest Sea*** (Red Sea). Sept., pp. 338-343
Double-Comb (Maya ruler) 795, 798; Portrait jar **794**
Dracula legend 695, 697, 707
Dresden Codex (Maya manuscript) 772
Dropmore (estate), Buckinghamshire, England **514,** 532
Drought 5, 7, 9, 13, 16, 23; Africa 154, 156, 162, 166, 167, 174, 177, 178, 181; Chronic drought areas: Map 4-5
Drug: Gerovital H_3 703, 704, 709
Dubai (sheikhdom), U.A.E.: ***The Arab World, Inc.*** By John J. Putman. Oct., pp. 494-533
Construction projects **510-511,** 511, 515
History 509
Income 515
Medical care 518; Hospital **518, 519**
Oil revenue 515
Port, deepwater 509, 511
Sheikh **504,** 509, 511, 515; Bodyguards **505**
Trade, foreign 509, 511; Per capita 511
Dugong Creek, Little Andaman Island 87; Onge camp 77, 81-82
Dugongs: Little Andaman Island 86, 87
Dung, cattle: Fertilizer 16; Fuel 15; Methane production 15
Duplessis, Joseph-Siffred: Painting by **92**
Dupré, Augustin: Medallion by **109**
Durrance, Dick, II, photographer: ***Alabama, Dixie to a Different Tune***. Oct., pp. 534-569; ***Library of Congress: The Nation's Bookcase***. Nov., pp. 671-687
Dutch East India Company 260-261, 262, 265, 266-267, 274; Trade routes, map of 266-267; Zeeland member group 266, 269
Dutch East Indiaman *see Slot ter Hooge*
Dyrholm, David **22**
Dzibilchaltún (Maya ruin), Mexico 733

E

Eagle, Alaska: Fourth of July celebration **837**
Earlocks: Hasidic Jews 277, **280-281,** 289, 294
Earthquake-proof building: San Francisco, Calif. **628**
East Dennis, Mass.: "salt-box" house **52-53**
East India trade companies 260-261, 262, 265
Eastern Neck National Wildlife Refuge, Md.: Whistling swan 137, 139
Eastern Shore, Md.: ***Tireless Voyager, The Whistling Swan***. By William J. L. Sladen. July, pp. 134-147
Eaton, Timothy 199
Ebenezer Society community, N.Y. 866
Eckman, Joel **878**
Economic Planning Board: South Korea 420, 427
Ecosystem: ***Miracle of the Potholes***. By Rowe Findley. Oct., pp. 570-579
Ecton, England 94, **111**
Eddypranoto, Widajat 463
Edenton, N.C.: Women patriots (1774) 476
Edison, Thomas 681
Eforie, Romania: Beach **712-713**
Egbert, Allan L.: ***Among Alaska's Brown Bears***. Sept., pp. 428-442

XUM

Eggs: Clam shrimp 578, **578-579;** Fairy shrimp **570-571,** 571; Mosquito, pothole 574, **574;** Nudibranch **349**
Egypt: Famine, predicted effects of 31; Farmers 31; Population control 21-22
Ehrle, Alma 874
Ehrle Brothers Winery 874
Ehrlich, Paul R. 29
The elderly: Chinatown, San Francisco, Calif. 627, 628, 630, **640,** 641, 643; Geriatrics 703, research 209, 703, 704-705; Hunza centenarians **652, 655,** 664; St. Petersburg, Fla. **28**
Electric power: ***Can We Harness the Wind?*** By Roger Hamilton. Dec., pp. 812-829
Electrical terms: Benjamin Franklin 105
Electronic tracking of wildlife *see* Radiotelemetry
Elizabeth II, Queen (Great Britain): Yucatán visit 763
Ellis, William S.: ***Romania: Maverick on a Tightrope.*** Nov., pp. 688-713
Elmira, N.Y.: Mark Twain 323, 326, 333
El Mirador (Maya ruin), Guatemala **784-785**
Embryo transplants: Cattle 2, 22
Energy: ***Can We Harness the Wind?*** By Roger Hamilton. Dec., pp. 812-829; ***Will Coal be Tomorrow's "Black Gold"?*** By Gordon Young. Aug., pp. 234-259
Energy crisis: Food production, effect on 7, 9, 15
Energy Research and Development Administration (ERDA) 249, 253; Power research 812, ERDA-NASA experimental wind-turbine generator (100kW) 823, **829**
Engler, Peter 131, 133
Enriquez de Harana, Beatriz 602
Enterprise, Ala.: Monument to boll weevil **562**
Environmental Protection Agency: Coal-mine safety research 258
Eskimos: Alaska 853, **856,** 859, **859;** Polar Eskimos: Hunters **369-371,** 390, 392, 393
Etherington, Donald 678
Ethiopia: Drought 13, 16
Ethnology: ***The Last Andaman Islanders.*** By Raghubir Singh. July, pp. 66-91
Europe: Eastern Europe: Jews 276, 277, 279, 286, 289-290; Wind power, use of 812, **822-823,** former 812, 823, research 824; *see also* Romania; Spain
Eutaw, Ala.: Hunting club **565**
Euw, Eric von 79
Evangelists: Alabama 550, 552, 555
Evans, Jeanette and Floyd **141,** 147
Evans, Warner **318**
Ewha University for Women, Seoul, South Korea 413, 427
Explorers: ***Christopher Columbus and the New World He Found.*** By John Scofield. Nov., pp. 584-625

F

Faisal ibn Abdul-Aziz Al Saud, King (Saudi Arabia) **443,** 494, **517,** 518, 519; Assassination of 443, 494, 517; Youth 494
Falcón, Domingo 773, 785
Falcón, Leonardo 785
Family life: ***An Ozark Family Carves a Living and a Way of Life.*** By Bruce Dale. July, pp. 124-133
Famine 2, 4, 5, 13, 16, 29, 31; Africa 154, 160, 174, 178; ***Bangladesh: The Nightmare of Famine.*** By Steve Raymer. July, pp. 33-39
Far East Food Products: Toronto, Canada 206
Farabaugh, Wayne and Tim **258-259**
Farmers: Asia 15, 23, 26, 29, 31; Small farmers 23, 29, 31; Soviet Union 13; United States **7,** 13, 24, 25
Farms; farming: Alabama 534, 536, 539, 550, 558, **560-561,** 562; Amana Colonies, Iowa 864, 871, **874-875,** 875, 876, 878; Baltis **662-663;** Barley field **662;** Bean field **744-745;** Corn harvest **728-729;** Cotton field **560-561;** Dominican Republic **599;** Guatemala **744-745;** Hunzukuts 655, 657; Israel **24-25;** Mali **152-153,** 154, **158-161,** 162, 166, 167, 169, 171, 177; Maya **728-729,** 733, **744-745,** 795, **806-807;** Millet harvest **160-161;** Paddy **20-21;** Romania 688, 692, 701, 712; South Korea 394, 397, 415, 420, **422-423;** Sugarcane field **20-21;** Taiwan **20-21,** 31; Thailand **20-21;** Tobacco field **599**
Faro, Jim 438
Fauchet, Abbé: Eulogy for Benjamin Franklin 122
Faude, Wilson H. 304, 322, 323
Feaks, Arthur A. **107**
Fenwick, George 140, **140,** 141, 142
Ferdinand, King (Spain) 596, 597, 600, 601, 613, 614
Ferrymen: Baltistan **666, 667,** 668
Fertilizer 4, 7, 9, 14; Alternatives to 29; Prices inflated 7, 15; Production plants, cost to build 23; Shortage 7, 9, 15-16, 20, 23
Festivals; celebrations: Alabama **566;** Cape Cod, Mass. **56-57;** Mali **156-157,** 167; Mexico **734-735;** ***Mountains, Seacoast, and a Living Legacy*** (New England). July supplement; ***Piedmont and Plain of Romantic Charm*** (southeastern United States). Oct. supplement; South Korea 394, 405, 408, **426;** Toronto, Canada 196, 199
Figurine, china: Benjamin Franklin **120**
Films, NGS 493, 583
Filmstrips, NGS 583
Findley, Rowe: ***Miracle of the Potholes.*** Oct., pp. 570-579
Fink, Alain 267, 269, 272
Fire-fighting equipment, colonial **100**
Fire insurance company, America's oldest 100; Fire mark **100**
Fire walking: Mexico **734-735**
Fish farming 25; Israel **25**
Fish wheels: Yukon River 851
Fishes: Alewives 46; Carp pond **25;** Cod 46, 47, 53, weathervane shaped like **40-41;** Halibut 47, 53; Lungfish 169; Moray eels, Sept. cover ill.; Nile perch 169; Puffer, Guinean **270;** ***Rainbow World Beneath the Red Sea.*** By David Doubilet. Sept., pp. 344-365; Salmon 431, 433, **437,** 438, **439,** king salmon **851;** ***The Strangest Sea*** (Red Sea). By Eugenie Clark. Sept., pp. 338-343; Whitefish **850;** Wrasse, rainbow **270**
Fishing: Athapaskan Indians **850,** 851, preservation of catch **850,** 851-852; Salmon fishing by brown bears 428, **430-431,** 433, **436-437,** 438, **439,** 440, 441
Fishing, commercial: Alabama 542, **545;** Cape Cod, Mass. 46-47, 53; Mali 167, 169; South Korea 401
Fishing, sport: Alabama **538-539;** Cape Cod, Mass. 46
Fitka, Charlie, Jr. 853, 856, **856,** 859, 860
Fitka, Exenia 859
Fitka, Nick 856
Fitz, Steve 47, 53
Five Girls (shrimp boat) **545**
Fjords: Greenland 367, **384-387**
Fleischer, Johannes 373
Flint, Lewis 64
Floods: Arkansas (1927) 312-313; Bangladesh (1974) 33
Foerstner, George 876
Folk art: Whirligigs **826-827**
Folk healers: Maya, present-day **747, 767**
fonio (wild grain) 177, **181**
Food crisis 1
Bangladesh: The Nightmare of Famine. By Steve Raymer. July, pp. 33-39
Can the World Feed Its People? By Thomas Y. Canby. July, pp. 2-31
Crop failures 4-5, 6, 7, 9, 10-11, 15-16, 20, 23; Climatic changes 4-5, 9, 16, 23; Destruction by birds **10-11;** Fertilizer shortage 7, 9, 15-16, 23

Ecological factors 25-26
Energy shortage 7, 9, 15, 24-25
Extent of crisis 4-5, 9, 13, 14, 22-26
Government policies 15, 17
Grain reserves, dwindling 4, 6-7, 9
Increased demand on food supply 2, 4, 9, 15, 17, 18, 22, 31
Inflation 2, 4, 6-7
Land and water scarcity 23-24
Political repercussions 13, 16, 29, 31
Predictions 5, 29, 31
Productivity, leveling off of 26
Remedies 14, 29, 31; Education in nutrition 22-23; New sources of food 2, **25;** Population control 17, 21-22; Productivity increase 13, 29, 31; *see also* Agricultural research
Food reserves 4, 9, 13; Depletion, results of (1972) 6-7, 9; Rebuilding of 31
For Our Bicentennial . . . Relive the American Adventure (book announcement). Oct., pp. 580-582
Ford, Gerald R.: Strip-mining bill, vetoes 241, 259
Ford, Johnny L. 569
Forest-products industry: Alabama 536, **542-543,** 556, **556**
Förstemann, Ernst 770, 772
Fort Henry, siege of 486, 488-489; Heroine **487,** 488-489
Fort Motte, S.C. 492
Fort Selkirk, Canada 841, 843
Fort Washington, Battle of 482-483
Fort York, Upper Canada: War of 1812 206
Founding Fathers *see* Franklin, Benjamin
Fountain: Place de la Concorde, Paris **120**
Four Corners Power Plant, N. Mex. 248
Fournier, Felix 743, 746
Fourth of July celebrations: Chatham, Mass. **56-57;** Eagle, Alaska **837;** First outside U. S. 118
Fowl, domestic: Chickens **765,** Hasidic slaughtering ritual **290,** 292, Maya ritual 739, **767;** Duck **141;** Turkey **752-753**
Fox hunt: Alabama **565**
France: Canadian settlements 206; Fourth of July celebrations: Benjamin Franklin's 118, U. S. Ambassador's 118, 122; Franklin's mission to 112, 114-115, 116, 118, 120, 122
Francke, Nancy 59
Franco-American alliance: American Revolution 116, 120, 482, treaty site **120,** 482
Frankel, Naftali Hertz 298
Franklin, Abiah Folger 94
Franklin, Benjamin: ***Benjamin Franklin, Philosopher of Dissent.*** By Alice J. Hall. July, pp. 93-123
Birth 93
Boyhood 94-95, 122
Cartoon by **109**
Children 98
Colonial agent, in London 93, 104-105, 107, 108, 109, 110, 112
Constitutional Convention 104, 122
Continental Congress 104
Creed 94
Death 122
Diplomat: First mission 102; *see also* Colonial agent, *above;* Envoy, *below*
Education 94-95
Envoy to France 93, 112, 114-115, 116, 118, 120; Popularity 112, 116, 118
Espionage 118
Homes 93, 101, 105, 108, 114
Honors 112
Inventions 95, 107
Marriage 94, 105
Medallion design **109**
Music, interest in 105
Parents 93-94
Pennsylvania Assembly 104; Clerk 102, 104; *see also* Colonial agent, *above*
Philadelphia years 93, 94, 98, 100, 101, 102, 104, 122
Portraits **92,** cover ill.; Figurine **120;** Statue **94**
Printer 93, 94, 95, 97-98, press **99;** Apprenticeship 95; Partner 102; Public printer 102, 104, currency **102,** documents **103**
Public service 96, 98, 100, 101, 102
Publisher 95, 98, 102
Quotations (insets) 95, 98, 102, 108, 112, 115, 118, 122
Scientist 102, 104; Experiments with electricity 102, 105
Writings 95, 97-98, 108, 110, 112; Autobiography 110; Craven Street Gazette **107;** Pen names 95, 97-98
Franklin, Deborah Read 98, 101, 105, 108, 122; Death 112
Franklin, James 95, 97, 98
Franklin, Josiah 94, 95
Franklin, Sally *see* Bache, Sarah Franklin
Franklin, William 98, 102, 104, 108, 112, 122
Freethinkers 94
French and Indian War 104
French Revolution 122
Freuchen, Peter 390
Friedman, Albert 292, 297, 298
Frostbite 219
Fuel consumption: Food production 24-25
Fuel research: Hydrogen 821, 824, 825
Fuels: Apricot-seed oil 664, 665; Hydrocarbon fuels 821; *see also* Coal; Gases, fuel
Fulanis (people): Mali **152-153,** 170, **170,** 171, **175,** cover ill.
Fulton, Robert 674
Funerals: South Korea **416-417**
Furniture stores: Amanaite-owned 871, **873,** cabinetmaker **870;** Kuwait **521**

G

Galdikas-Brindamour, Biruté **444,** 449, **449, 451, 456, 465, 472,** cover ill.; ***Orangutans, Indonesia's "People of the Forest."*** Oct., pp. 444-473
Gales: Antarctic Regions 226, 229, 230; South Atlantic 232
Gallega (Columbus's ship) 615
Gallozzi, Charles 681
Games: Billiards: Mark Twain playing **334;** Checkers **280-281;** Mah-jongg 629, 634, 639
Gang wars: Chinatown, San Francisco, Calif. 630, 639
Gangloff, Michel 267, 269
Gao, Mali 174, 177; Refugee camp **178-179**
García Moll, Roberto 789
Garment-factory sweatshops: Chinatown, San Francisco, Calif. 633, **634,** wages 633, 634
Garter snake, red-sided *(Thamnophis sirtalis parietalis):* ***Manitoba's Fantastic Snake Pits.*** By Michael Aleksiuk. Nov., pp. 715-723
Birth 720, **722**
Diet 716, 720
Harmlessness 715
Hibernation 715, 716, 723
Life expectancy 722
Mating **714,** 717, **718-719,** 720; Environmental regulation 723
Migrations 715, 716, 720, 723
Population depletions 716, 720
Prey to crows and mice 717
Study 715, 720, 722, 723; Marking **716,** 722, 723
Two-headed **722**
Young 720, **722,** 723
Gases, fuel 15; Hydrogen 821, 824, 825; Methane 825; Substitute natural gas 249, plant **249**
Gates, Horatio 114
Gateway Arch, St. Louis, Mo. **307**
Gavin, Angus 143, 147
Gees Bend, Ala. 558, 560, **560-561**
Gehrke, Emil **827**
Geiger, Harry 876, 878
General stores: Amana Colonies, Iowa **868-869,** 871
Generators, wind-driven **815,** 815-816, 822, 823, **824,** 824-825, **829;** Economics of 815, 816, 818, 820-821, 822, 823, 824, 825

Genetics: Cattle, upgrading of 2, 22; Grains: High-protein and high-yield research 13, 14, 19, 20, 23, 28-29; Sweet-potato research 26
George III, King (Great Britain) 93, 107, 108
George & Vulture (pub), London **107,** 108
Georgia: American Revolution: Woman patriot 486, 488, **490;** ***Piedmont and Plain of Romantic Charm.*** Oct. supplement
Geriatrics: Research: Romania 703, 704-705, Toronto, Canada 209; Water treatment 703
Gerlache Strait, Antarctic Regions 224, 227
Germany, West: Strip mining 244; Wind-power research: Machine design, experimental 824
Gerovital H_3 (drug) 703, 704, 709
Gerster, Georg: ***The Niger: River of Sorrow, River of Hope.*** Aug., pp. 152-189
Gettysburg Address (Lincoln): Miniature copy **680**
Gheorghe Gheorghiu-Dej, Romania 701, 703
Ghost towns: Yukon Territory 841
Giant Bible of Mainz 685
Gibson, Dan 255
Gilgit, Kashmir 646
Glaciers: Karakoram Range 646, 652, 653, 658, 664
Glanzman, Louis S.: Paintings by **584-585, 603-604,** ***Patriots in Petticoats.*** Oct., pp. 475-493
Glass ball: Maya *zaztún* 739, **747**
Glenn, Lee 442
Glide Memorial Methodist Church, San Francisco, Calif. **328-329**
Glyphs, Maya 733, 736, 738, **741, 750,** 755, **756, 757, 761, 766,** cover ill.; ***The Maya: Riddle of the Glyphs.*** By George E. Stuart. Dec., pp. 768-791
Gnat, pothole: Larva: West Africa 571
Goddard, Mary Katherine 493, **493**
Gods and goddesses, Maya 738, 739, 741, **743, 744,** 750, 763, 766, **766, 778-780, 787,** 802
Godthåb, Greenland 380; Apartment blocks **377,** 380
Godwin Austen (K2), Karakoram Range 651, 665
Gold: Mali, ancient 166; Spanish quest for 590, 597, 598, 609, 610, 611, 614, 615, 616; Weighing pan **844-845**
Gold mining: Alaska 843, 846, 848, 851; Canada 843
Gold Museum, Bogotá, Colombia: Objects **590, 617, 625**
Gold ornaments: American Indians **590, 591, 617, 625,** cover ill.; Fulanis (people): Mali 170, **175,** cover ill.; Silla Dynasty: Korea 394, **419**
Gold rush: Klondike district, Canada 831, 836, 837, 843, 844, 845
Gold Star Co., Ltd., Pusan, South Korea 400
Gold trade: Dubai 511
Goodrum, Charles A. 681
Gorilla, white **149B**
Gorsse, Louis 260, 267, 269, 272, 273
Governor's Palace, Uxmal, Mexico 763
Graham, Ian 768, **768,** 785, 791
Graham, John 791
Grains 1; ***Can the World Feed Its People?*** By Thomas Y. Canby. July, pp. 2-31
Grand Coulee, Wash.: Whirligig assortment **826-827**
Grandpa's Knob (mountain), Vt.: Wind turbine 823, 825, **828**
Grant, James P. 29
Grant, Malachy 190
Great Andaman, Andaman Islands *see* Jarawas (Negrito tribe)
Great Andamanese (Negrito tribe): Andaman Islands 70, 71, 72, 88-89, **88-89,** 90; Diseases afflicting 88, 89; History 77, 88-89; Housing **88-89,** 89-90; Leader **88**
Great Britain: Andaman Islands colonization 70, 72, 76, 88; Antarctic bases 216, 220, 221, 227, 229, map 220
Great Compromise: U. S. Constitution 122
Great Depression 536, 560
Great Plains: Strip mining 249, 253
Great Rift Valley system, Africa-Asia: Gulf of Aqaba 341; Red Sea 341
Green, Ma (tavern owner) 336
Green, Moishe 289, 290
Green Revolution 4, 9, 14-15, 20, 21, 28; Founder 9, 13, 14, **23,** 28, 31
Greenhouse: Abu Dhabi **527**
Greenland: ***Greenland Feels the Winds of Change.*** By John J. Putman. Sept., pp. 366-393
Area 375, 381
Capital (Godthåb) 377, 380
Changes since 1950's 368, 371, 373, 377, 380, 381, 386, 390, 391, 392
Danes 371, **372,** 373, 377, 380, 381, **385,** 386, 390, 392
Dogs 371, 374, 378; Sledge race 374, 378
Drinking 366, 371, 373, 377, 390
Economy 371, 377, 381; Imports and exports 378, 381; Livelihoods 374, 377, 380, 381
Education 372, 373; Policies 379, 390; Schools **372,** 378-379, 386, 392; Teachers 371, **372,** 373, 378-379, 386, training 372, 380
Government: Danish governor 380-381; Political status 371, 375, 381
Health care 373, 380, 390, **391,** 392
History 371, 378, 386
Housing **366-367,** 368, **377,** 380, **382-383, 391**
Hunters 367, **369-371,** 371, 373-374, 380, 390, 392; Clothing 373, 392
Language 372, 379
Legends 381, 392
Map 375
Natives: Attitudes 378-379, 380, 386, 390; Loneliness 380, 381
Population 371, 375; Birthrate 380
Suicides 366, 371, 373, 377, 380
Village life 371, 373-374, 378, 380; Importance of 377, 379, 380
Wildlife 368, 374, 380, 381; Refuge 375, 386
Women 366, 371, 373, 374, 380, 390, 392
Greenland Seminarium, Godthåb 380
Gregory, Patrick 720, 723
Grigorescu, Nicolae 709
Grizzly bear 428
Grosvenor, Gilbert M.: Editorials 1, 151, 299, 443, 583, 727
"Group of Seven" (Canadian artists) 210
Grove, Noel **307;** ***Mark Twain: Mirror of America.*** Sept., pp. 300-337
Grumman Aerospace Corporation: Wind-power research: Machine design 824
Guadalupe, Spain: Shrine of Virgin Mary 600, 601
Guadeloupe (island), West Indies: Cannibals (1400's) 609; Columbus 609; Waterfall **608,** 609
Guahibo Indians: Colombia 623
Guatemala: ***The Maya.*** Dec., pp. 729-811
Guaymi Indians 615; Canoes 615, **620**
Guerrero, Gonzalo 765-766
Guhjalis (people) 654
Guilford Court House, Battle of 477
Guilherme, Porto do, Porto Santo: Shipwreck site **264,** 266, 267, 269, 272, map engraving **262**
Guinea: Niger River, source of 154, 162, 167
Guinness Book of World Records: Coauthor **202**
Gulf Coast area: Alabama 542-543, 545, **545, 558-559,** Oct. supplement
Gulf Oil Corporation: Public Broadcasting Service grant: NGS television 583
Gulf States Paper Corporation: Tuscaloosa, Ala. 556, **556,** 557

Gulf Stream: Benjamin Franklin described 104
Gullotti, Pedro 738
Gunn, William W. H. 146
Gura Humorului, Romania **697**
Gusic, Vladimir-Iulius 704-705
Gutenberg Bible: Library of Congress 674
Gypsies: Romania 688

H

Habroush, Mohammed 508
Habroush Building, Abu Dhabi 507-508
Hager, Elizabeth 476
The Hague, Netherlands: National archives: Shipwreck reports 261-262, 265, 266
Hahm Pyongchoon 408
Hahn, Doris 876, 878
Hahn, Dorothy 311
Hahn, Jack **868,** 876, 878
Haile Selassie, Emperor (Ethiopia) 13, 16
Hailey, Arthur 210
Haiti: Archeology 610-611, finds **593, 610,** 611; First Spanish settlement in New World (Navidad) 598, **603-604,** 610-611
Halcomb, Thomas and Lorene **253**
Hall, Alice J.: ***Benjamin Franklin, Philosopher of Dissent.*** July, pp. 93-123; ***A Traveler's Tale of Ancient Tikal.*** Dec., pp. 799-811
Hall, Claude **254**
Hall, David 102
Halla, Mount, Cheju, South Korea 420
Hallett, Goody 58, 63
Ham (son of Noah): Legend 174
Hamburg, Ill. **308-309**
Hamilton, Roger: ***Can We Harness the Wind?*** Dec., pp. 812-829
Hammocks: Caribbean Indians **623;** Maya 742
Hampton, Kay **537**
Han River, South Korea 409; Bridges, new 395, 397
Hanil textile plant, Masan, South Korea 400
Hanna, Wyo.: Coal gasification project 253
Hannibal, Mo. **305,** 311; Junior high school 311, 313
Hardburley, Ky. **255**
Hardy, George 554, 555
Harlan County, Ky.: Coal mining 240, 255
Harrar, J. George 17
Harrison, Peter D. 801
Harrison, Nebr.: Windmills **818**
Harrop, Red 442
Hart, Nancy 486, 488, **490**
Hartford, Conn.: Mark Twain's home 299, 304, 322, 329, **330-331,** interior **332-333**
Harvey, David Alan, photographer: ***The Maya, Children of Time.*** Dec., pp. 729-767
Harwich Port, Mass. **48-49**
Hasidic Jews: ***The Pious Ones.*** By Harvey Arden. Aug., pp. 276-298
Children 279, **280-281, 283-285,** 285, **292-293,** 294, **295,** 298, **298**
Clothing 277, 279; Prayer shawls **277, 298**
Food and drink 285, **286-287, 291,** 295; Preparation **290,** 292
Hairdress 277, 279, **280-281,** 289, 294, **295**
History 279, 286, 289-290
Holiday and Sabbath observances 277, 279, 284, 285, **285,** 294, **296, 297**
Jobs **288, 290,** 292, 294, 298
Schools **282-283,** 284, 285, **293,** 294, 298
Spiritual leader *see* Satmar Rebbe
Women 279, 292, 294, **295**
Haskett, Jim 486
Havrilack, Harry 851
Hawley, Al **722,** 723
Hazlett, James 488
Health care *see* Medicine and health
Heart surgery: University Hospital, Birmingham, Ala. 563
Heating system, Korean 413
Hebrew letters 276, **279,** 294; Scribe making **288**
Helicopters: Bell JetRanger **502-503;** Greenland 373, 381, 392; Skyscraper construction **202, 203**
Helmericks, Bud 147
Helvétius, Anne-Catherine **116-117**
Herculaneum, Mo. 336
Heronemus, William E. 825
Herren, Dick 818
Herren Bros., Harrison, Nebr.: Windmill repair **818**
Herz Foundation: Orangutan study 449
Hesse, Henry 316
Hewson, E. Wendell 825, 828
Hickerson, Joe 675, **683**
Hicks, Eddie 545, 550
Hieroglyphs *see* Glyphs
High Amana (village), Amana Colonies, Iowa: Church 869, 871, **876-877;** General store **868-869**
Highway 6A, Mass. 46
Hippopotamus hunt: Niger River, Africa **172-173,** 177, 181
Hispaniola (island), West Indies: ***Christopher Columbus and the New World He Found.*** By John Scofield. Nov., pp. 584-625
Hockey, ice: Toronto, Canada 213
Hodges, William H. 610-611
Hog farming: Amana Colonies **874-875,** 878
Holbrook, Hal 330
Hollingsworth, James F. 413-414
Holly Grove, Ark. 313
Homestead (village), Amana Colonies, Iowa 863, 866, 874, 878
Honduras: Maya 732, 733, 741 *see also* Copán
Honea, John, family **850,** 851
"Honest Ed's" (discount store), Toronto, Canada 210-211
Honey Gap, Ky.: Strip mining fight 255
Hooton, Earnest 750
Horezu, Romania **706-707**
Hornsby, Henry, Jr. 306, 311
Horse and wagon **706-707**
Horsemen: Alabama 556, **565**
Horses: Colt **689;** Ponies **378;** Workhorses: Weight-pulling contest **56-57**
Horton, Fred 47
Hospitals: America's first 98; Children's: Toronto, Canada **212,** 213, 215; Dubai **518, 519;** Saudi Arabia 518; University of Alabama 563
Houdini, Harry: Library 677
Houses: Prefabricated: Greenland 368, **391;** "salt-box" **52-53**
Hubbard Medal, NGS: Recipient: Alexander Wetmore **151**
Huck Finn (fictional character) 300, 303, 304, 306, 323, 326
Hudson's Bay Company: Canada 841, 843
Hughes, William L. 824, 825
Huie, Fred 634
Hulet-Dorne, Bea 16
Human sacrifice: Maya 735, 738, 750, 765, 811
Hunac Ceel Cauich (Maya ruler) 750, 755
Hunedoara, Romania **691;** Steelworks **690**
"hunger belt" 1, 4, 20, 26, 29; Map 4-5
Hunt clubs: Alabama 539, 556, **565**
Hunters: Andaman Islanders **67-71, 80,** 83, 85, 87; Greenlanders 373-374, Polar Eskimos **369-371,** 390, 392, 393
Hunting: Baltistan 668; Hippopotamus **172-173,** 177, 181; Narwhal 368, 390, 392; Pig 81, 83, 86, 87; Seal 373-374
Hunza (region), Kashmir: ***Trek to Lofty Hunza—and Beyond.*** By Sabrina and Roland Michaud. Nov., pp. 644-669
Hunzukuts (people): ***Trek to Lofty Hunza—and Beyond.*** By Sabrina and Roland Michaud. Nov., pp. 644-669
Character 654
Craftsmen 656, 657
Customs 646, 653-654, 655
Diet 652, 654, 664, 665
Dress: Men **652,** 657; Women **653,** 664
Farming 655, 657, 664
Homes 654, **654-655**
Hospitality 653, 654
Languages 647, 654, 657
Longevity 661, 664; Centenarians **652, 655**

Origins 653
Religion 654
Stamina 661
Weavers 657
Women 664, 665
Hurricanes: Alabama 542, 543; South Atlantic cyclone **228-229,** 232-233
Hut Bay, Little Andaman Island 72, 81, 87
Hutchinson, Thomas 112
Hutchinson letters, affair of the 112
Hyannis, Mass. 58
Hydrocarbon fuels: Electricity can generate 824
Hydroelectric dams: Danube 709; Yukon River plan shelved 837, 848
Hydrogen production and storage: Research 821, 824, 825
HYGAS (coal gasification process) 249; Pilot plant 249, **249**
Hyundai shipyard, Ulsan, South Korea 400, **406**

I

Ibex, Siberian 668
Ice Bird *Ends Her Lonely Odyssey.* By David Lewis. Aug., pp. 216-233
Ice floes: Antarctic Regions 221, 222, 224
Icebergs: Antarctic Regions 216, 221, **223,** 227, 229, 230, 231, 232
Iceblink **221,** 227
Igaliko, Greenland 381
Ijaw (tribe): Nigeria **188-189,** 189
Ikerasak, Greenland 366, 371, 373-374, 378-380; Medical care 373, 380, 392; Schoolroom **372;** Teachers 371, **372,** 373, 378-379, 392; Water supply 373
Illinois: Coal mines **238-239,** 257
Illuminated manuscripts: Book of Hours **672-673,** 674
Imboden, Otis, photographer: ***The Maya: Riddle of the Glyphs.*** Dec., pp. 768-791
Immigration; immigrants: Canada 196, laws 196
Immigration; immigrants: United States: Chinese 627, 628, 629-630, 632, 639, illegal immigration 630-631, suspension of (1882) 630; 1965 law 628, 632
Imperial Palace (restaurant), Chinatown, San Francisco, Calif. **636-637,** 641
Incense-burning: Maya 755, Quiché Maya **754**
Incunabula: Library of Congress 674, 677
Independence Hall, Philadelphia: Assembly Room 102, **103,** 104, George Washington's chair **122**
India 1, 33; ***Can the World Feed Its People?*** By Thomas Y. Canby. July, pp. 2-31; *see also* Andaman Islands
Indian Ocean: Red Sea's life forms and water level 338, 341
Indian subcontinent: Deforestation, effects of 25-26
Indians of Middle America *see* The Maya
Indians of North America: American Revolution **487,** 488, 489; Canada 206; Massachusetts 47, 58
Indians of the Caribbean: ***Christopher Columbus and the New World He Found.*** By John Scofield. Nov., pp. 584-625
Artifacts **593,** 609; Gold **590, 617**
Cannibals **586-587,** 602, 609
Canoes **586-587, 592-593,** 615
Early engravings depicting **586-587, 592, 599**
Narcotics, use of 623
Population, decimation of (1490's) 610, 624
Present-day **591-592,** 609, 615, **620,** 623, **623,** 624
Spanish-Indian history 598, 601, 602, 609, 610, 611, 612, 615, 624; Destruction of Navidad **603-604,** 610
Indonesia *see* Tanjung Puting Reserve
Indus (river), Asia 665; Tributaries 665, 666, **666, 667**
Inflation, global 2, 15, 28, 33; Causes, contributing: 1972 5, 6-7, 9, oil a factor in 530
Inland Delta (region), Mali **154-157, 160-161,** 167, 169, 170, 171; Size 169
Innes-Taylor, Allan 840-841
Insects: ***Miracle of the Potholes.*** By Rowe Findley. Oct., pp. 570-579
Institute of Gas Technology, Chicago 249
Institute of Geriatrics, Bucharest, Romania **703,** 704-705
International cooperation: Agricultural research 14, **20-21,** 26, Green Revolution 4, 9, 14-15, 20, 21, 28; Bird marking 142-143; Famine relief 13, 16, 33, 36-37; Land development 28; Nutrition campaigns 22-23; Orangutan-conservation program 458; Population control 17; World Food Conference 31
International Monetary Fund 527, 530, 532; Special Drawing Rights 532
Inwood, Canada: Garter snake migrations **720, 721**
Iowa's Enduring Amana Colonies. By Laura Longley Babb. Dec., pp. 863-878
Iron Gate Dam, Romania-Yugoslavia 709
Iroquois Indians: Canada 206
Irrigation: Baltistan 662; Computerized: Israel 25; Fuel shortage, effects of 7, 15; Hunza 653, 664; Pakistan's reservoirs silting up 26
Irvine, Chuck **435,** 442
Isabela (Spanish settlement), Hispaniola 611
Isabella, Queen (Spain) 596, 597, 600, 601, 613, 614
Islam: Ismaili sect 654; Mali 156, 162, 167, 169, 174; Polygamy 162; Saints 646, 652; Saudi Arabia 494, 518, prayers **533;** Shiite sect 665; Women's rights 531
Ismond, Anne 723
Israel: Aquiculture 25; Farm, desert **24-25;** Satmar Rebbe's belief about 289
Italian district: Toronto, Canada 196, **196, 198,** 199
Itaunja, India: Inflation, effects of 2, 4

J

Jackson, Addie **312**
Jackson, Elizabeth Hutchinson 492
Jackson, John **683**
Jackson, "Stonewall" 557
Jacobsen, Josephine 687
Jacobsen, Louise 373, 380, 392
Jade: Maya artifacts **793, 794**
Jaguars (Maya rulers) 804 *see also* Bird Jaguar; Shield Jaguar
Jaina Island, Mexico: Maya figurines **743, 748**
Jakobshavn, Greenland 381, 388-389
Jamaica (island), West Indies 611, 615
James Madison Memorial Library, Washington, D. C. 674, 684
Jane and Justin Dart Foundation: Orangutan study 449
Japan: Cattle raising **14-15;** Farmers 31; Korea, colonization of 395, 400, 420; Krill harvesting 2; Meat consumption 15; Navy defeated by Korea (1597) 420; Zero population growth 17
Japan, Sea of 400-401
Jarawas (Negrito tribe): Andaman Islands 70, 71, 72, **73, 74,** 75-76, 77, 81, 89, 90, 91
Jasinski, Marc 273
Jazz band: New Orleans, La. **322-323**
Jeck, Mrs. William **868**
Jefferson, Thomas 674
Jefferson County, Ala. *see* Birmingham
Jehovah's Witnesses: Baptism **568**
Jensen, Christa 366, 371, 378
Jensen, Dick 442
Jensen, Flemming 366, 371, **372,** 374, 378-379, 392
Jensen, Merle **527**
Jewelry making: Sandwich, Mass. 45, 46
Jewish New Year: Hasidim 279, service 284
Jews *see* Hasidic Jews
Jidda, Saudi Arabia 518; School **529**

Join the Curiosity Crowd on National Geographic's Trail of Adventures! (children's book series). Nov., pp. 724-726
Jones, Jake 534, 536, 569
Jones, John Paul 114
Jones, Vern 442
Jones & Laughlin Steel Corporation: Coal mine **236-237**
Jordan, Paul R. 253
Joshi, A. B. 15
Jubail, Saudi Arabia 522
Judaism *see* Hasidic Jews
Juilliard String Quartet **682**
Julianehåb, Greenland: Housing **377, 391**
Jungle *see* Tanjung Puting Reserve, Borneo
Junto (club founded by Benjamin Franklin) 98, 101, 102
Jursa, John 206

K

K2 (Mount Godwin Austen), Karakoram Range 651, 665
Kaal, Jacob 812
Kainji Dam, Nigeria 185
Kainji Reservoir, Nigeria 186
Kaminaljuyú (Maya ruin), Guatemala 732-733
Kan-Boar (Maya ruler) 792
Kan Ik, Lady (Maya queen) 760
Kangaba, Mali 162
Kanghwa Island, South Korea: U. S. Marine landing (1871) 409
Karakoram Highway, Pakistan: Construction 657, 660, 661, Chinese laborers 657
Karakoram Range, Central Asia: ***Trek to Lofty Hunza—and Beyond.*** By Sabrina and Roland Michaud. Nov., pp. 644-669
Karate: *taekwondo* (Korean) 401
Kashmir, Pakistani: ***Trek to Lofty Hunza—and Beyond.*** By Sabrina and Roland Michaud. Nov., pp. 644-669
Kejser Franz Josephs Fjord, Greenland **384-385**
Kelley, David 755, 760, 789, 790
Kennedy family: Hyannis Port, Mass. 44, 65
Kensington Market, Toronto, Canada **207,** 212
Kentucky: Coal mines 244, 255; Land reclamation 241; Strip mining 241, 253, 255
Kentucky Fried Chicken franchises 526; Abu Dhabi **496-497**
Kentucky Reclamation Association 241
Kenya: Crop-destroying birds **10-11;** Fertilizer shortage 23; Population: Control 21, growth rate 21
Kerala (state), India: Birthrate drop 21
Keshishian, John **787**
Khalid ibn Abdul-Aziz, King (Saudi Arabia) 517
Khapalu, Baltistan 666
Khunjerab Pass, Karakoram Range 661
Kiawah Island, S.C.: Kuwait's purchase of 526
Kim, H. Edward 399; Family **412;** photographer: ***South Korea: What Next?*** Sept., pp. 394-427
Kim, Stephen Cardinal 427
Kim Il Sung 415
Kim Jong Pil 405
Kim Young Sam **399,** 405
Kimmswick, Mo. 336
King, Jim 135
King, Martin Luther, Jr. 547
Kirklin, John W. 563
Klika, Thom 59
Kline, Fred: ***Library of Congress: The Nation's Bookcase.*** Nov., pp. 671-687
Klinger, Sam 240
Klondike (district), Canada: Gold rush (1898) 831, 834, 840, 841, 843, 844, 845
Knorozov, Yuri 790
Kocher Coal Company, Valley View, Pa. 240
Kohunlich (Maya ruin), Mexico: Pyramid **786-787**
Koita, Gaoussou 167
Korea: ***South Korea: What Next?*** By Peter T. White. Sept., pp. 394-427
Korea University, Seoul, South Korea 401, 405
Korean Central Intelligence Agency 405, 408
Korean rock group: Girl singer **836**
Korean War 400, 406, 413, 414
Koulala, Mali 167
Krill harvesting 2
Kristof, Emory, photographer: ***Can We Harness the Wind?*** Dec., pp. 812-829
Kuebler, Charles 239, 240
Kuehne, Richard 483
Kung fu (martial art) **628, 642-643**
Kunitz, Stanley 59
Kuraszewski, Guy 114, 115
Kurjack, Edward 733
Kuskokwim River, Alaska **852-853**
Kuwait: ***The Arab World, Inc.*** By John J. Putman. Oct., pp. 494-533
Area 522
Banks **509**
Construction **512-513, 520,** 522, **525**
Education, free 511, 522
Foreign aid 514, 523
Foreigners **509, 520,** 523
Housing: Low-income **512-513, 520,** 522; Middle-income 522
Industrialization 523
Investments 523, 526-527
Medical care, free 511, 522
Money surplus 522, 523
OPEC member 500
Oil 522; Field **501;** Price increase 527; Production 522; Revenue 522, 523, 527
Shipping 523
Tourism 520
Water, desalinized 525
Women's rights 529
Kuwait Fund for Arab Economic Development 514, 523, 527; Director General **514,** 523
Kuwait Oil Company 522
Kwangju, South Korea 415
Kwashiorkor **26**
Kyongju, South Korea 394, 408, 419; Burial mounds 394, **418, 419**

L

Labbezonga, Mali **182-183**
La Fay, Howard: ***Alabama, Dixie to a Different Tune.*** Oct., pp. 534-569; ***The Maya, Children of Time.*** Dec., pp. 729-767
La Grande Anse, Guadeloupe (island): Waterfall **608,** 609
La Naya (Maya ruin), Guatemala 768
Land: Arable 15, 23, 24, 26, 29, map 4-5, production potential 29; Cultivated 23, map 4-5; Denuding, cause of erosion and flooding 25; Losses to highways; industry; strip mining 23-24, 241, 248, 249, **250-252;** Unarable 24, study of 28
Land reclamation 241, 244, 248, 253
Landa, Diego de 770, 772, 808
Lander, Richard and John 167
Lane, Theodore: Painting by **684**
Langdon, Charles 321
Langston, Dicey 492
Lassen, H. J. 380-381
The Last Andaman Islanders. By Raghubir Singh. July, pp. 66-91
Lauf, Otto **377**
Lavies, Bianca, photographer: ***Manitoba's Fantastic Snake Pits.*** Nov., pp. 715-723; ***Tireless Voyager, The Whistling Swan.*** July, pp. 134-147
Lavrentia, Sister 699
Leakey, Louis S. B. 446
Leather fire bucket **100**
Lee, Sunny 206
Lee Byunghyung 401
Leeches: Borneo jungle 446, 465
Lei, David 639
Lei, Linda Shen **638**
Lemaire Channel, Antarctic Regions 221, 224; Map 220
Leong, Jack, family 632-633
Leong, Tony 639
Lessing J. Rosenwald Collection: Library of Congress 674, 677, 685
Lethbridge, John (18th-century wrackman): ***The Treasure of Porto Santo.*** By Robert Sténuit. Aug., pp. 260-275
Lewis, Barry 232
Lewis, David 216, **217-219, 222, 225, 226, 230, 233; Ice Bird *Ends Her Lonely Odyssey.*** Aug., pp. 216-233

Lewis, John L. 258; Drawing of **257**
Liberia: Agricultural research: Study group in Taiwan **20**
Libraries, public: Benjamin Franklin's thoughts on 101; United States 677, 681, 682
Library Company of Philadelphia 101, 102; Suggestion box **101**
Library of Congress: The Nation's Bookcase. By Fred Kline. Nov., pp. 671-687
Archive of Folk Song: Work of 674-675, **683**
Blind people, service to **676,** 681
Books: Cataloging 682; Number 674; Old and rare **672-673,** 674, 677, **685;** Size extremes **680**
Buildings 674, 684, **687**
Congress, service to 674, 682, 687; Congressional Research Service **675,** 681
History 674
Lending policies 682
Main Reading Room **670-671,** 671, **677**
Map collection 674, 684
Music collected 674-675, 681, **682, 683**
Newspaper and Current Periodical Reading Room 684, 687
Papers, personal 674, **678, 679,** 681
Processing Department 682
Rare Book and Special Collections Division 677, 685
Recording projects 675, **683;** Talking books **676,** 681
Restoration Office 678, 680, 681
Space limitations 674, **677**
Life preserver, goatskin **666,** 668
Lightning rods 95, 107
Lignite 235, 248; Deposits (map) 244
Lillequist, Margaret **720**
Limestone sinks: ***Manitoba's Fantastic Snake Pits.*** By Michael Aleksiuk. Nov., pp. 715-723
Limvere, Karl 249
Lincoln, Abraham: Gettysburg Address, miniature copy of **680;** Letter 674
Lisbon, Portugal: Columbus's return voyage (1493) 600
Literature 671, 674, 677, **685;** Beat poetry, history of 319; ***Mark Twain: Mirror of America.*** By Noel Grove. Sept., pp. 300-337; Phillis Wheatley: Poetry 489, 492
Little Andaman Island *see* Onges (Negrito tribe)
Little League player: Amana Colonies **878**
Livestock: Feed 9, grain consumption 1, 13, 15, 18, 22; Hunza 657, 668; *see also* Cattle; Hog farming; Sheep
Lizzie (towboat) **318**
Lobsters: Cape Cod, Mass. 46, **61**
Log cabin **856, 857;** Building of 853, **854-855**
Lombardi, Johnny 196, 199
London, England 93, 104, 105, **106,** 107, 108; Benjamin Franklin's home 105; Pub **107,** 108
Lone Rock, Cheju, South Korea **420-421**
Longevity: Hunzukuts 653, 654, 661, 664
Longwall mining: Coal mines 242, 244, diagrams **242**
Loom, hip: Maya **806**
Lopez, Claude-Anne 118
Lorenzen, John 815-816
Louis XVI, King (France) 112, 114, 115
Lounsbury, Floyd 790-791
Lowe, Gareth 733
Lubavitcher Rebbe 289
Ludington, Sybil **488,** 489
Lumb, Jean 205
Lumberyard (19th century): Wind-powered machinery **821**
Luminescence: Fishes 343
Luque, Michael H. **430;** ***Among Alaska's Brown Bears.*** Sept., pp. 428-442
"Lurgi" (coal gasification process) 248
Lynge, Hans 381
Lynge, Inge 380, 381

M

McAfee, Don 534, 536
MacAninch, Mrs. Nelson 489
McCalip, Bill 314
McCampbell, Brenda **548**
McClantoc, Charles **544, 545**
McClantoc, Grace **545**
McCoy, Larry 215
McGuinness Distillers Ltd., Toronto, Canada: Public service 200-201
MacLeish, Archibald 678
MacLeod, N. H. 16-17
McLuhan, Marshall **208**
MacMillan Bloedel company: Alabama: Tree harvesting **542-543**
McNeil Falls (rapids), Alaska **430-431,** 433, 438
McNeil River State Game Sanctuary, Alaska: ***Among Alaska's Brown Bears.*** By Allan L. Egbert and Michael H. Luque. Sept., pp. 428-442
McWhirter, Ross **202**
Madden, Robert W., photographer: ***Toronto: Canada's Dowager Learns to Swing.*** Aug., pp. 190-215
Madeira Islands *see* Treasure, sunken
Madrid Codex (Maya manuscript) **729, 744, 750, 752, 764, 766,776-780**
Maine: Wind-generated power 815, 816, 820
Majorca (island), Balearics: Windmill design **822-823**
Makepeace, Chris 64
Makhlouf, Abderrahman H. 504, 507, 525
Mali: ***The Niger: River of Sorrow, River of Hope.*** By Georg Gerster. Aug., pp. 152-189
Agriculture 154, **158-159,** 169; Crops **152-153,** 158, **160-161,** 162, 167, 169, 171, 177, cash 158, 166; Harvest **160-161;** Locust control 169
Art 171, 174
Capital 167
Cattle 167, 170, **170-171**
Drought 154, 156, 162, 166, 167, 174, 177, 178; 1940's 167
Fishing 154, 167, 169
Fulanis (people) **153,** 170, **170,** 171, **175,** cover ill.
Gold 166, 170, **175**
Hippopotamus hunt **172-173,** 177, 181
History 162, 166, 174
Inland Delta **154-157, 160-161,** 167, 169, 170, 171
Irrigation 158, **158-159,** 166
Market place **164-165,** 169
Refugee camps 167, 174, **178-179,** 181
Trade 154, 158, 162, 169, 171, 177
Tuareg (people) 174, 177, 181
Mali, Empire of 162, 166
Malinke (people): Mali 162, 166, 174
Malnutrition 4, 16, 22, 23, 26, 27, **32,** 33; Breast-feeding factor 23; Number afflicted, estimated 1, 22, 26, 28; Research **27**
Malthus, Thomas: Theory 5, 14, 17
Mamaia, Romania 710
Man, Edward Horace 70
Maní, Mexico: Maya, present-day **745-747**
Manitoba's Fantastic Snake Pits. By Michael Aleksiuk. Nov., pp. 715-723
Manrique, Leonardo **769**
Manuscript Division, Library of Congress 674
Mao Tse-tung 13
Map announcement: World map 583
Map collection: Library of Congress 674, 684
Maple Leaf Gardens, Toronto, Canada 213
Maps:
Africa: Niger River 166
Alabama 550; *Close-up: U.S.A., The Southeast,* Oct. supplement
Alaska 431; Yukon River 836-837
Andaman Islands, Bay of Bengal 72
Antarctic Regions 220
Canada 192, 431; Yukon River 837
Caribbean region: Columbus's voyages 595, 602, 612, 614

Connecticut: *Close-up: U.S.A., Western New England*, July supplement
Georgia: *Close-up: U.S.A., The Southeast*, Oct. supplement
Great Lakes region, Canada-U.S. 192
Greenland 375
Indonesia, western 448
Iowa 864
Karakoram Range, Central Asia 649
Kashmir 649
Land usage: World 4-5
Massachusetts: Cape Cod 51; *Close-up: U.S.A., Western New England*, July supplement
Maya sites: Mexico and Central America 736-737
Middle East: Oil reserves 500
Migration routes of North American whistling swan 139
Mississippi: *Close-up: U.S.A., The Southeast*, Oct. supplement
New England: *Close-up: U.S.A., Western New England*, July supplement
New Hampshire: *Close-up: U.S.A., Western New England*, July supplement
North Carolina: *Close-up: U.S.A., The Southeast*, Oct. supplement
Oil reserves: Middle East 500
Persian Gulf states 500
Rhode Island: *Close-up: U.S.A., Western New England*, July supplement
Romania 693
San Francisco, Calif. 633
Sinai Peninsula 341
South Carolina: *Close-up: U.S.A., The Southeast*, Oct. supplement
Southeast (region), U.S.: *Close-up: U.S.A., The Southeast*, Oct. supplement
Tennessee: *Close-up: U.S.A., The Southeast*, Oct. supplement
Thirteen Colonies 478
Trade routes: Europe-Asia (1602-1795): Dutch East India Company 266-267
United States: *Close-up: U.S.A.* series: *The Southeast*, Oct. supplement, *Western New England*, July supplement; Coal deposits 244; Thirteen Colonies 478; Wind distribution 819
Vermont: *Close-up: U.S.A., Western New England*, July supplement
West Indies: Columbus's four voyages 595, 602, 612, 614
The World: Columbus's time **605-607**; Cultivated and arable land 4-5; *The Physical World* and *The Political World*, Nov. supplement
Maramureş (district), Romania 701
Marano, Nino 297
Marasmus (malnutrition) **26**
Marcus, Vera **552-553**
Marie Antoinette, Queen (France) 112, **116**
Marigalante (Columbus's flagship) 602
Marine biology: ***Rainbow World Beneath the Red Sea.*** By David Doubilet. Sept., pp. 344-365; ***The Strangest Sea*** (Red Sea). By Eugenie Clark. Sept., pp. 338-343
Mark Twain: Mirror of America. By Noel Grove. Sept., pp. 300-337
Mark Twain Memorial, Hartford, Conn. 304, 322, 329, **330-331**; Curator 304, 322, 323; Interior **332-333**
Markets: Guatemalan Maya **752-753, 799, 808-809**; Mopti, Mali **164-165**, 169; Toronto, Canada **207**, farmers' market 212-213; Trade Day: Collinsville, Ala. 564, 569
Marmorilik mine, Greenland 381
Marshall, Alaska: Christmas celebration 853, **858-859**, 859
Martial arts: Kung fu **628, 642-643**; *tae kwondo* 401
Marxists: Oman 507, 516
Mary, Virgin: Shrine: Guadalupe, Spain 600, 601
Maryland: American Revolution: Woman patriot 493, **493**; *see also* Eastern Shore
Marz, Fritz 878
Masan, South Korea: Hanil textile plant 400
Mashpee, Mass.: Church 64-65
Masks: Gold **617**; Maya **786, 793**; South Korea **414**
Massachusetts: American Revolution: Women patriots 476, **476**, 477-479, **480, 485**, 486, **489**, 492-493; ***Mountains, Seacoast, and a Living Legacy.*** July supplement; *see also* Cape Cod
Mastora, Mrs. (Indonesian) **452**
Mather, Cotton 95
Matheson, William 677
Mathews, Peter 791
Mattamuskeet National Wildlife Refuge, N.C.: Whistling swan 140, 146, feeding hazards 146
Matzo (unleavened bread) 292
Maudslay, Alfred P. 772
The Maya:
I—***The Maya, Children of Time.*** By Howard La Fay. Dec., pp. 729-767
II—***Riddle of the Glyphs.*** By George E. Stuart. Dec., pp. 768-791
III—***Resurrecting the Grandeur of Tikal.*** By William R. Coe. Dec., pp. 792-798
IV—***A Traveler's Tale of Ancient Tikal.*** By Alice J. Hall. Dec., pp. 799-811
Agriculture **728-729**, 733, **744-745**, 795, **806-807**
Architecture **730**, 735, **740**, 755, 760, **760, 762-763**, 763, 793, **799-811**
Art 733, 735, 736, 738, **741**, 750, 755, 763, **772-776, 787** *see also* Sculpture, *below; and* Madrid Codex
Astronomy 729, 735, 736, 738, 749, 763, 766, 772; Observatory 766, **766**
Ball game 749-750, **810-811**; Player, sculpture of **748**
Calendar 729, 731, 732, 735, 736, 737, 749, 763, 770, 772-773, **777-780**, 785, 789-790, 791, cover ill.; Diagram **783**
Chronicles 732, 735, 750, 763, 765-766
Deities 735, 738, 749, 750, 755, 766, **766**, 791, 798, 802; Corn **729, 741, 779**; Merchant **744, 778**; Moon 741, **743**; Rain 738, 739, 763, **779-780, 787**, 802; Sun 738, **757**, 783, **787**, 789; Underworld 738, 749, 774, **779**, 783
Food, ceremonial 739, 764, **767**
Government *see* Rulers, *below*
Houses 742, **742-743**, 793, **804-807**
Language 735, 736, 738; Dictionaries 738, 749, 789; Pronunciation 737
Looting of artifacts 738, 768-769, 787, 791
Map of territory 736-737
Naming system 749
Number system 729, 738, 770, 773, 783, 785
Pyramids **763**, 785, **786-787, 790**, 792, **796-803**; Tomb of Pacal 731, 732, 755, 760, **760**, 762, coffin lid **761**
Religion 744, 750, 772; Priests 738, 739, 746, 749, 763-764, 766, 770, 772-773, 775, 777, 791, 811; Rites 731, **734-735**, 738-739, **747, 751, 754**, 758, burial 762, 774, sacrifices 739, 764, **767**, human 735, 738, 750, 762, 765, 811; *see also* Deities, *above*
Rulers 731, 732, 750, 755, 757, **759**, 760, **761**, 762-763, **773, 775, 781-782, 788**, 789, **791**, 792, **794**, 795, 798, 802, 804
Sculpture **730-731**, 735, 741, **743, 748, 749, 756, 757, 759**, 760, **761**, 763, **771, 781-782, 786, 793, 794**
Social order 746, 762, 795
Spanish conquest of 729, 732, 738, 741, 750, 764-766, 808
Temples *see* Pyramids, *above*

Tombs 733, 794; Burial customs 762, 774; Vase paintings **772-776;** *see also* Pyramids, *above*
Trade 732, 741, 793, 795; Markets **752-753, 808-809**
Warfare 733, 735, 738, 788
Women, status of 739, 750, 760, 795
Writing system 729, 731, 737, 769, 770 *see also* Glyphs
Mayapán (Maya ruin), Mexico 755
Mayflower (ship) 51
Mayflower Compact 51, 59
Meat consumption: Affluent societies 1, 4, 15, 22
Meat production and grain use 1, 15, 18, 22
Meckley, Bob **238**
Medallion: Commemorating British surrender (1781) **109**
Medicine and health: Corrective surgery 212, 215, 563; Geriatrics 703, longevity studies 654, 661, 664, research 209, 703, 704-705; Mental retardation and nutrition 26, 27; *see also* Diseases; Malnutrition
Melham, Tom: ***Cape Cod's Circle of Seasons.*** July, pp. 40-65
Mellon, Andrew **256**
Melon, winter: Decorated **636, 637**
Memphis, Tenn.: Riverfront **302-303**
Méndez, Diego 615-616
Menis, Argentina **700**
Mental retardation and malnutrition 26, 27
Mérida, Mexico 738, 746, 750
Merry Cemetery, Săpinţa, Romania 699, 701
Meschkat, Arno 167
Methane: Coal mines 239, 240; Production of, proposed 825
Methodists: South Korea 408, 413
Metz, Christian 869
Mexico: Agricultural research 9, **9,** 13, 14, 23; Malnutrition research **27;** ***The Maya, Children of Time.*** By Howard La Fay. Dec., pp. 729-767; ***The Maya: Riddle of the Glyphs.*** By George E. Stuart. Dec., pp. 768-791
Michael, King (Romania) 698
Michaud, Romain **644, 647, 649, 654, 666**
Michaud, Sabrina and Roland **644, 647, 648, 649, 654;** ***Trek to Lofty Hunza—and Beyond.*** Nov., pp. 644-669
Microfilming: Library of Congress 678, 680, 681
Middle Amana (village), Amana Colonies, Iowa: Bakery **868,** 876; School 864
Middle Andaman Island, Andaman Islands *see* Jarawas (Negrito tribe)
Middle East and Near East *see* Arabian Peninsula
Midland Fox Hounds (hunt club): Alabama **565**
Migration, animal:
Garter snake 715, 716, 720, 723
Geese **842-843**
Whistling swan, eastern (*Olor columbianus*): ***Tireless Voyager, The Whistling Swan.*** By William J. L. Sladen. July, pp. 134-147
Altitudes, flight 137, 142, 144; Weather disturbances alter 137-138
Assemblies, spring 137, 139
Collision with aircraft 138, 144
Fall migration 137, 142, **143**
Flight speeds 142, 144
Flight take-off 137
Map (migration routes) 139
Mileage accumulations 135, 137, 140, 142, 143, 144
Nonstop flights 137, 142, 144
Premigratory restlessness 141
Routes and route points 135, 137, 140-142, 143, 144, 146, 147; Map 139
Spring migration 137, 140-142, 143, 146, 147
Stopovers 137, 138, 141, 142
Miles, China Grove 560, 562
Miles Canyon, Yukon River **832-833**
Military Armistice Commission, Panmunjom, Korea 424, **425;** Secretariat 414
Milk: Powdered: Famine relief **13,** 36; Unpasteurized: Alabama 550
Mill, wind-powered 812
Miller, Arnold 257
Miller, Arthur 874
Miller, Arthur G. 741, **787**
Miller, Lee 442
Miller, Milton D. 26
Millet 16, **18-19,** 162; Harvest **160-161**
Mines; mining: Gold and silver: Alaska 843, 846, 851, Canada 843, Virginia City, Nev. 315-316, 325; *see also* Coal mines
Miniature books: Library of Congress **680**
Miracle of the Potholes. By Rowe Findley. Oct., pp. 570-579
Mirvish, Edwin 204, 210-211
Missionaries: Korea 413
Missisauga Indians: Canada 206
Mississippi: ***Piedmont and Plain of Romantic Charm.*** Oct. supplement
Mississippi River, U. S.: ***Mark Twain: Mirror of America.*** By Noel Grove. Sept., pp. 300-337; Shipping **6-7**
Mobile, Ala. 550, 552, **558-559**
Mobile Bay, Ala. 542, 545, **558-559**
Mobley, George F., photographer: ***Greenland Feels the Winds of Change.*** Sept., pp. 366-393
Mohammad Jamal Khan, Mir of Hunza 646
Mohammad Nayab and son **656**
Mohammed, Sheikh **502, 503**
Moldavia (region), Romania 694; Monastery churches 699, **708**
Moldoviţa Monastery, Romania 699, **708**
"Molly Maguires" (secret society) 239, 240, 256
Monmouth, Battle of: Heroine 483, **483,** 484, 486
Monroe, N.Y.: Hasidic community 298
Monsoons: Map 5; Shifting 1, 5, 16
Montejo, Francisco de 764, 766
Montgomery, Ala. 547, 550, 557
Moore, Henry 215
Moptí, Mali **164-165,** 169; Mosque **168**
Moreau de Saint-Méry (Médéric Louis Élie) 610, 611
Morgan, Aubrey, and family **551**
Morgan, J. P. **256**
Morrison, Samuel Eliot 596, 624
Morristown, N.J.: Washington's headquarters, Martha Washington's visits to 479, 480, **481**
Mosely, Chapman and LeRoy **561**
Moser, Roy 878
Moslems: At prayer: Mali **168,** Saudi Arabia **533;** Ismaili sect 654; Mali **156-157,** 162, 167, **168,** 174; Polygamy 162; Saints 646, 652; Shiite sect 665
Mosque: Mopti, Mali **168**
Mosquito, desert pothole: Life cycle 574, **574-575**
Motherwell, Robert 59
Motte, Rebecca 492
Mount Vernon, Va. 479, 482
Mountain people: Alabama 564, **566-567,** 569; *see also* Baltis; Hunzukuts
Mountainburg, Ark. *see* Cottage industry
Mountains, Seacoast, and a Living Legacy (New England). July supplement
Muhlenberg County, Ky. 241
Mukho, South Korea: Squid season 401
Mukluks **859**
Mureşanu, Gheorghe 710
Murphy, Dennis 556-557
Musa, Mansa, King (Mali) 166
Music; musicians: Folk songs, American 675, **683;** Jazz band, New Orleans **322-323;** Library of Congress collections 674-675, 681, **682, 683;** Toronto, Canada **198,** 204, 209
Musical instruments **322-323;** Accordion **198;** Armonica **105;** Guitar **376;** Mandolin **566;** Stradivari violin **682**
Mustard, William T. 215
Myong-dong area, Seoul, South Korea 401, 405
Myongyang, Strait of, South Korea: Japanese-Korean naval battle (1597) 420

N

Nabinama, Bibi **653**
Nachancam (Maya) 765
Naknek, Alaska 442
Nakou, Mohammed 16
Nam Duck-Woo 397
Namwon Chin clan 415
Naranjo (Maya ruin), Guatemala 769, 788
Narcotics: *yopo* **623**
Nares, Lake, Canada **838-839**
Narwhal hunting: Greenland 368, 390, 392
Năstase, Ilie 709
Nathan Phillips Square, Toronto, Canada **210-211**
National Aeronautics and Space Administration (NASA): Windpower research 821, 823, machine designs, experimental 823, 824, **829**
NATIONAL GEOGRAPHIC:
Articles: "How the World Is Fed" (Jan. 1916) 1; David Lewis's Antarctic voyage (Dec. 1973) 216; Natural history 151
Bicentennial, U.S.: Articles commemorating *see* American Revolution
Editor: Editorials 1, 151, 299, 443, 583, 727; Introduction to article 394
Illustrations Library: Photographs, number of color 149
Photographs: Autochromes: NG's first published 299, never-before-published Autochrome of Mark Twain 299, **301;** Number made in color 149
Recorded for the handicapped 681
National Geographic *School Bulletin:* Replaced with WORLD 149, 299
National Geographic Society:
Bicentennial, U.S., observances: Film series 493; ***For Our Bicentennial . . . Relive the American Adventure*** (*We Americans* book announcement). Oct., pp. 580-582; NATIONAL GEOGRAPHIC articles *see* American Revolution
Board of Trustees: Member: Alexander Wetmore **151**
Cartographic Division: Innovations in latest publications of World map and *Atlas of the World* 583
Expeditions and research 442 *see also* Grants, *below*
Films *see* Television and Educational Films
Filmstrips 583
Grants: Brown bear study: Alaska 428, 431; Maya studies: Middle America 732, 757, 773, 787; Orangutan study: Indonesia 449; Underwater salvage expedition: Porto Santo 267; Whistling swan research 135, 137
Hubbard Medal: Recipient: Alexander Wetmore **151**
Publications *see Atlas of the World;* Books, NGS; Maps (supplements); NATIONAL GEOGRAPHIC; WORLD
Television: Bicentennial film series 493; Public Broadcasting Service series 299, 583
National Geographic WORLD (magazine for young readers) 299; ***Start the World, I Want to Get On!*** July, pp. 148-150
National Park Service 58
National parks: Greenland 375, 386
National Union Catalog 682, 684
Natural gas: Kuwait 501; Saudi Arabia 519
Nature-study walk **42-43**
Nauset Beach, Mass. 40, **44-45**
Navajo Indians: Coal strip mine 248
Navajo Tribal Council 248
Navidad, La Villa de (first Spanish settlement in New World), Hispaniola 598; Constructed of *Santa María* timbers 598; Destroyed by Indians **603-604,** 610; Site, search for 610-611
Nazer, Hisham **514,** 519
Nebraska: Drought (1974) 9; Windmills **818,** ranching depends on 818
Negritos: ***The Last Andaman Islanders.*** By Raghubir Singh. July, pp. 66-91
Diseases 87, 88, 89
History 68-69, 70, 71, 72, 76-77, 88-89, 90
Languages 70, 75, 82
Map of territory 72
Number of 70, 73
Physical characteristics 66, 73, 75, 76
Policies toward 71, 75, 88, 90; Gifts to 66, **70-71,** 71, 73, 75, 87, 90-91
Slave raids on 69, 70
Tribes: Number of 66, 70, 71, 72; *see also* Great Andamanese; Jarawas; Onges, *outlined;* Sentinelese
Weapons 66, **66-71,** 75, **80,** 81, 82, 83, 90
Nelson, Stan 95, 96-97, **99**
Netherlands: Arab oil embargo 501; National archives: Shipwreck reports 261-262, 265, 266; Ship salvage proceeds 265; Windmills 812
Nevada: Gold and silver strikes 315, 316; Mining 315-316, 325
New Bussa, Nigeria 167, 186
New Energy From an Old Source: The Wind. By Roger Hamilton. Dec., pp. 812-829
New England: ***Mountains, Seacoast, and a Living Legacy.*** July supplement; *see also* Cape Cod
New Hampshire: ***Mountains, Seacoast, and a Living Legacy.*** July supplement
New Jersey: American Revolution: Woman patriot 483, **483,** 484, 486
New Mexico: Strip mining 248
New Mexico State University, Las Cruces: Windmill-repair course 814
New Orleans, La.: Jazz band **322-323;** Shipyard **320-321**
The New Toronto. By Ethel A. Starbird. Aug., pp. 190-215
New York: American Revolution: Women patriots 482-484, **488,** 489
New York, N.Y.: American Revolution: Woman patriot 482-484; Immigrant assimilation 196; *see also* Brooklyn
New York Zoological Society: Orangutan study 449
Newspapers: American Revolution: Woman editor 493, **493;** *Bay Guardian* (San Francisco): Editor and publisher 319, **329;** Chinese-language **632;** *Diario de Yucatán* 764; *New-England Courant* (Boston, 1721-) 95, 97-98; *The Pennsylvania Gazette:* Founder of 98, 102, LC collection 684, 687; *Territorial Enterprise* (Virginia City): Mark Twain 315, 325
Niah caves, Sarawak, Borneo 468
Niamey, Niger 181, **185;** National Museum **184**
Niangay, Lake, Mali: Water hole now **180**
Nielsen, Jørn **385**
Nielsen, Lewis T. 570, 573, **573,** 578
Niger, Republic of 185; Capital 181, **184, 185;** Coup 16, 181; Drought 16, 181; Malnutrition 16; National Museum **184;** Refugee camps 181
Niger Delta (region), Nigeria 162, 186, **188-189**
Niger River, Africa: ***The Niger: River of Sorrow, River of Hope.*** By Georg Gerster. Aug., pp. 152-189
Delta 162, 186, **188-189**
Drainage basin 162
Drought 154, 156, 162, 166, 167, 178, 181
Exploration of 166-167
Fishing 154, 167, 169
Flooding, annual 154, 162, 167, 169
God of **152,** 162, 166, 174
History 162, 166-167, 169, 174
Inland Delta **154-157, 160-161,** 167, 169, 170, 171
Irrigation 158, **158-159,** 166
Kainji Dam 185
Length 162, 166
Map 166
Names of 166
Navigation of 171, 174, 186
Source 154, 162, 166, 167

XUM

Nigeria: Civil war 188; Dam 185; Income, average 188; Land-development study 28; OPEC member 500; Oil 186, 188, 189, drilling platform **187,** revenue 186, 189; Population 186
Niña (Columbus's ship) **584-585,** 596, 597, 598, 599, 600, 602
Nitrogen-fixing grasses, development of 29
Nixon, Richard M. 693
Nobel Peace Prize: Winner (1970) 9, **23**
Noor Mohammad **655,** 664
Norfolk, Va.: Railyard **246-247**
Normanna Strait, Antarctic Regions 227, 229
North America: Bear species 428; Grain reserves 4, 13, selling of (1972) 6, 9; Wildlife *see* Brown bear; Garter snake; Whistling swan
North Carolina: American Revolution: Women patriots 476, 477; ***Piedmont and Plain of Romantic Charm.*** Oct. supplement; Whistling swan 137, 140, 146
North Dakota: Strip mining 249, 253
North Korea: Military Armistice Commission meeting 414, **425;** South Korea's relations with 394, 396, 401, 414, 424, 427, infiltration of South Korea 401, 424
North River Hunt Club: Alabama 556
North Sentinel Island, Andaman Islands *see* Sentinelese
North Slope, Alaska: Whistling swan breeding grounds 135, **136,** 137, **137,** 143, 147
North Truro, Mass. 53
Nudibranch **348-349;** Eggs **349**
Nunnery Quadrangle, Uxmal, Mexico **763**

O

Oak Alley (plantation), Vacherie, La. **316-317**
Oats **19**
Observatory, Mayan: Chichén Itzá, Mexico 766, **766**
Oehser, Paul H.: *Research Reports 1890-1954* 442
Oil: ***The Arab World, Inc.*** By John J. Putman. Oct., pp. 494-533; Consumed in food production 24-25; Food from derivatives 2; Nigeria 186, 188, 189, drilling platform **187;** Political issue 812; Prices 812, 821; Reserves, world: Diagram **500;** Romania 698, 710; Shortages 812
Oil discoveries 532; Alabama 550, 558
Oil drilling, offshore: Greenland 381, 389, 390; Wind-driven generators 820-821
Oil-extraction mill, wind-powered: Peanut oil 812
Oil refineries: Romania **711,** bombing of (World War II) 698-699
Oklahoma State University, Stillwater: Wind-power research 824-825, machine design, experimental **822,** 824
Oktoberfest: Amana Colonies, Iowa 863
Old Indian Church, Mashpee, Mass. 64; Graveyard 65
Old South (meetinghouse), Boston, Mass. 94
O'Leary, Wilfred 94
Oman: ***The Arab World, Inc.*** By John J. Putman. Oct., pp. 494-533
Capital *see* Muscat
Defense spending 507, 515
Development, plans for 515
Education 515
History 515; Coup (1970) 515
Insurrection 507, 515, 516
Marxists 507, 516
Mercenaries hired by 507, **507,** 516
Oil revenue 507, 515
Sultan 507, 515, 516; Former 515
Yemen, relations with neighboring 516
100kW Experimental Wind-Turbine Generator (NASA) 823, **829**
Onges (Negrito tribe): ***The Last Andaman Islanders.*** By Raghubir Singh. July, pp. 66-91
Bartering 81
Clothing **78,** 81, **81-83,** 85
Customs 78, 81, 82, 85, **85;** Face painting **78, 79,** 81
Diet **78,** 81, 82, 83, 86, 87
Diseases afflicting 87
Dugouts 82, **86,** 87, **90-91**
Fishing 81, 86
Housing **76-78,** 81, 82, 83, **84-85,** 87
Hunting **80,** 83; Turtle 86, 87
Hygiene 85, **85,** 87-88
Pets 83, **84-85**
Smoking 78, 81
Tools 81, **86**
Ontario (province), Canada *see* Toronto
Ontario, Lake, Canada-U. S.: Port 190, **192-193**
Ontario Place, Toronto, Canada **192-193,** 206
Ontario Science Centre, Toronto, Canada **214, 215**
Open-pit mining *see* Strip mining
Opossums *see* Possums
Optical illusion: Looming **221**
Orangutan (*Pongo pygmaeus*): ***Orangutans, Indonesia's "People of the Forest."*** By Biruté Galdikas-Brindamour. Oct., pp. 444-473
Arboreal 444, 446; Exceptions 444, 446, 448, 449
Captives: orphans **445, 449,** 451-452, **452-459, 461-463, 465-469, 472,** cover ill.; Destructiveness of 451, 452, 462, 463, 467, 470, 472; Rehabilitation of 451-452, 453, 454-455, 458, 463, 467, 470, 472; Skills **452, 453, 462,** 467
Display: Reaction to intruders 446, 452, 456, 457, **466,** 472
Feeding **447, 450, 451,** 470, 471; Diet 446, 448, 451, 468, 472
Females **451,** 452, 456, 460, 462, **470, 471;** Gestation 457; Mating preferences 462, 470; Sexual maturity 460
Legal protection of 449, 451, 453
Locomotion on ground 446
Males **446-447, 451,** 456-457, 462, **470,** 472, **473;** In combat 456-457; "long call" 456
Nests 446, 456, 457, **459;** "ground" nests 449
Range: Diminishing 448, 449; Map embracing 448
Size; weight 446, 452, 453
Social interaction, limited 446, 451, 456, 460, 462, 463
Study of: Achievements 472; Duration of study 444, 446, 472; Future study 472; Methods used 452, 460; Sponsors 449, 451, 458; Study camps 446, 451, 452, **452-456, 462-463,** 463, 467, 470, 472, map locating 448
Temperament 448-449
Threatened extinction of 448, 449, 455; International efforts to save 458
Tool usage: Pet orangutans **453,** 467
Young 448; Infants **471,** need to cling 451, 455; Juveniles **450,** 452, 456, 460, 462-463; Severance-from-mother process 462-463; Subadults 449, 456, 460, 462; *see also* Captives; orphans, *above*
Oré Vendou, Mali 171
Oregon State University: Wind-power research 825, 828
Organization of Petroleum Exporting Countries (OPEC) 494, 500-501, 523, 527, 530, 532
Orrego Corzo, Miguel **787**
Orth, Julius 249, 253
Oumalha, Ahmed Ag 174
Ovando, Don Nicolás de 614, 615
Overstreet, Elwood, Jr. **538**
Oviedo y Valdés, Gonzalo Fernández de: "Historia General" (1535, 1537), drawings from **592, 609, 620, 623**
Oysters: Alabama 542, 543, 545
An Ozark Family Carves a Living and a Way of Life. By Bruce Dale. July, pp. 124-133

P

Paarlberg, Don 29
Pacal (Maya ruler) 783; Tomb 731, 732, 755, 760, **760,** 762, coffin lid **761**

Pack ice: Antarctic Regions 216, 219, 221, **222-225,** 224, map 220; Greenland **366-367, 386-387**
Paekche Dynasty: Korea: Capital 409
Paige, James 328
Paine, Albert Bigelow 335
Paine, Louise **334**
Paint Rock Valley, Ala.: Household **566-567**
Pakistan: China border 661, road signs **660;** Regions governed by *see* Baltistan; Hunza
Pakistani Army: Hunzukut enlistees 664; Soldiers **660,** 661
Palenque (Maya ruin), Mexico 732, 738, 755, 762, 770, 783, 788, 790, 791; Bas-relief **781-782;** Palace **730-731;** Pyramid tomb 731, 732, 755, 760, **760,** 762, coffin lid **761**
Palmer Station, Antarctic Regions: Crew 216, 219, **219**
Panama: Caribbean coast **623;** Indians **591, 592,** 615, **620, 623,** cover ill.
Panmunjom, Korea: Military Armistice Commission meetings 414, **425**
Paper industry: Alabama 536, 556, **556**
Paper making 677-678; Korea, ancient 394
Parades: Fourth of July: Chatham, Mass. **56-57;** Seoul, South Korea **426;** Sharjah **506**
Paradise, Ky.: Razed 241, 244
Paradise Harbor, Antarctica: Argentine base 221, 224, 227
Paria Peninsula, Venezuela 612
Paris, France **119-121**
Park, Mungo 166-167, 186
Park Chung Hee **398,** 405, 415, 424, 427; Assassination attempt on 401
Parks, Rosa 547
Parks, Winfield 443; photographer: ***The Arab World, Inc.*** Oct., pp. 494-533; ***Romania: Maverick on a Tightrope.*** Nov., pp. 688-713
Passman, Brad 314-315
Passy, France: Benjamin Franklin's home 114, 118
Pasu, Hunza 646, 657
Pătraş, Ion Stan 699
Patriots in Petticoats. By Lonnelle Aikman. Oct., pp. 475-493
Patterson, Bill **307,** 330, 336
Paun, Justine 705
Peabody Coal Company: Kentucky 241, 244
Peace Corps: Colombia 22-23; Mali 167
"peacock" coal **234-235**
Peanuts: Enterprise, Ala. 562
Pearson, Norman Holmes 326
Peary, Robert E. 390
Penn, William 98; Heirs of: Property tax delinquents 104, 108
Pennsylvania: American Revolution: Women patriots 476, 477, 483, 484; Coal mines **236-237, 238,** 240; Land reclamation 241; "Molly Maguires" 239, 240, 256; State House (Independence Hall) **97,** 102, **103,** 104
Pennsylvania Assembly 98; Franklin member of 102, 104
Pennsylvania Hospital, Philadelphia: Founding of 98
Penola Strait, Antarctic Regions 216, 221, **222-225;** Map 220
Pérez, Juventino, and son **747**
Perquin, Roger 267
Persian Gulf: ***The Arab World, Inc.*** By John J. Putman. Oct., pp. 494-533
Peru: Agricultural research 28; Fish catch, decrease in 9
Petén, Department of the, Guatemala *see* Tikal
Petrescu, Adrian 694
Petrie, Mrs. Charles 326
Petrified wood **245**
Petroleum *see* Oil
Philadelphia, Pa.: American Revolution: Women patriots 476, 477; 18th-century **96-97, 101;** Fire company, colonial 100; Benjamin Franklin's influence 96, 98, 100-101, 102
Philip V, King (Spain): Likeness on coin **271**
Philippines: Agricultural research 14, 28-29; Crop losses (1972) 9
Philosopher of Dissent, Benj. Franklin. By Alice J. Hall. July, pp. 93-123
Photography: First dependable color 299; History of 299; "roll-out" **772-776,** diagram 773
Pickford, Mary 213
Piedmont and Plain of Romantic Charm (southeastern United States). Oct. supplement
Piedras Negras (Maya ruin), Guatemala 788-789
Pike, Zebulon 206
Pilgrim Monument, Provincetown, Mass. 59
Pilgrims: Massachusetts 51, 59
Pimentel, David 25
Pine Hill, Ala.: Tree harvesting **542-543**
Pinellas County, Fla.: Senior citizens **28**
Pinta (Columbus's ship) 596, 597, 599, 600
Pinzón, Vicente Yáñez 616
The Pious Ones (Hasidic Jews). By Harvey Arden. Aug., pp. 276-298
Pipelines: Coal **246,** 248; Oil: Trans-Alaskan 848, map 837
Pitcher, Molly (Mary Hays) 483, **483,** 484, 486
Pitt, William (the Elder) 108
Pitz, Rudolph 866
Plantations: Alabama 539, **551,** 560; Louisiana **316-317**
Plato 671, 674
Plautius: Engraving (1621) **586-587**
Pleasant Bay, Mass. **64-65**
Plimoth Plantation, Mass. 51, 59
Ploieşti, Romania: Oil refineries **711,** bombing of (World War II) 698-699
Plum Brook test area, Ohio: Windpower research 823, **829**
Poenaru, Petrache 709
Pohang, South Korea: Steel mill 397, 405, worker **404**
Point aux Pins, Ala. 545
Poisonous fishes: Red Sea **353, 354**
Pollution: Alabama 545, **554,** 555, control **554-555,** 556, oyster beds 542, 545; Coal-related 235, 240-241, 243, 246, 248, 249, **252,** 253, control 241, 243, 244, 248
Polo, Marco 68, 70
Ponies: Greenland **378**
Poole, Frazer G. 678
Poor Richard's Almanack (Franklin) 95, 98
Popchu, South Korea: Buddhist temple **402-403,** 427
Popol Vuh (Maya chronicle) 732
Popular Front for the Liberation of Oman 516
Population, world 1, 4, 9, 17; Diagram **31**
Population control 1, 13, 17, 21-22, 29, 31
Population explosion 1, 2, 4, 5, 14, 17, 21, 29; Diagram **31**
Porcelain making: Korea, ancient 394
Port Blair, Andaman Islands: Penal colony 72, 76, 77, 88
Porto Santo (island), Madeira Islands *see* Treasure, sunken
Portsmouth Square, San Francisco, Calif. 627, **628**
Portugal: Columbus's relations with 596, 600, 612; Windmill design **822**
Possums: Alabama **535,** breeder 534, **534-535,** 536, hunt 534, 536
Potatoes **19,** 28
Potholes, desert: ***Miracle of the Potholes.*** By Rowe Findley. Oct., pp. 570-579
Poverty 2, 4, 15, 17, 22, 33, 37, 39; And population explosion 9, 21
Power and power plants: ***Can We Harness the Wind?*** By Roger Hamilton. Dec., pp. 812-829
Prayer shawls: Hasidic Jews **277, 298**
Pre-Columbian history *see* The Maya
Presbyterians: South Korea 405, 413
Presley, Paul and Jean **255**
Primates *see* Orangutan
Primitive peoples: ***The Last Andaman Islanders.*** By Raghubir Singh. July, pp. 66-91
Prine, John 241

Printing, history of 95-97, 493, 674, 677, 684, 687; Presses (1700's) **99, 493**
Proctor's Corps of Artillery: American Revolution 483, 484
Proskouriakoff, Tatiana 783, 788, 789, 791
Protein: Deficiency effects 16, 22, 26, **26;** Grains, high-protein 1, 19, 28, 29; Legumes, protein-rich 18, **19;** New source 2
Provincetown, Mass. 44, 47, 51, 53, 58-59
Provincetown Fine Arts Work Center, Provincetown, Mass. 59
Prudhoe Bay region, Alaska: Whistling swan 143, 147
Purim: Hasidic boys **285**
Pusan, South Korea: Industry 400; National Folk Art Contest **414**
Putman, John J. **443;** ***The Arab World, Inc.*** Oct., pp. 494-533; ***Greenland Feels the Winds of Change.*** Sept., pp. 366-393
Puyo, South Korea: Confucian ceremony **409**
Pyramids, Maya **763,** 785, **786-787, 790,** 792, **796-803;** Tomb of Pacal 731, 732, 755, 760, **760,** 762

Q

Qabus bin Said, Sultan (Oman) 515, 516
Qagssiarssuk, Greenland: Sheep ranchers **378**
Quarry Farm, Elmira, N.Y. 323, 326
Quiché Maya 735, 738, **754**
Quilting: Alabama 560
Quiriguá (Maya ruin), Guatemala **756, 757,** 772-773, 789

R

Rabbit Creek, Canada: Gold discovered (1898) 837, 843
Rabby, Llewellyn 542-543
Races, boat: Cape Cod, Mass. **48-49**
Radarange (microwave oven) 876; Assembly **872**
Radcliffe-Brown, Alfred Reginald 71
Radiotelemetry: Brown bear 434; ***Tireless Voyager, The Whistling Swan.*** By William J. L. Sladen. July, pp. 134-147
Rafts; Raft trips: Goatskin buoyed: Shyok River, Kashmir **666, 667,** 668; Mississippi River **307,** 330, 336; One-man raft: Kuskokwim River, Alaska 852, **852-853;** ***Rafting Down the Yukon.*** By Keith Tryck. Dec., pp. 830-861
Building of raft 834-835, **834-835,** 846, 848
Detour around dam 840
Distance 831, 841, 843, 846, 852
Lakes crossed **834-835,** 835, **838-839,** 840
Length of time 831, 834, 841, 860
Log cabin from raft 852, 853, **854-857**
Navigational problems 831, 832, 833, 840, **840,** 841, 846, **846-847,** 848
People encountered, helpfulness and hospitality of 840, 841, 851, 853, 856, 859, 860
Purpose of trip 831, 834
Recreation **830-831, 856**
Route 834, 852; Map 836-837
Rahman, Sheik Mujibur 39
Raigosa, Mario Antonio **745**
Railroads: Coal hauling **243, 246-247,** 248
Rain: And desert pothole life 570, 571, 573, 578; Drought-breaking: Africa 16; Maya ceremonies 738-739, 763, **767,** 777; U. S. crop losses 9
Rain forests: Martinique **587**
Rainbow Shop, Provincetown, Mass. 59
Rainbow World Beneath the Red Sea. By David Doubilet. Sept., pp. 344-365
Rakkhi Bahini (paramilitary government force): Bangladesh: Soldier **39**
Ramadan (Moslem month) 156, 167
Ramakumar, R. 824
Rangpur (district), Bangladesh: Refugee camp **32,** 33
Ras Muhammad, Sinai peninsula: Underwater preserve off *see* Red Sea
Rash, Jerry 313
Rashid, Sheikh (Dubai) **504,** 509, 511, 515
Rashid, Port, Dubai 511
Rasmussen, Donald 253, 258
Rasmussen, Knud 385, 390
Raymer, Steve, photographer: ***Bangladesh: The Nightmare of Famine.*** July, pp. 33-39; ***Can the World Feed Its People?*** July, pp. 2-31; ***Iowa's Enduring Amana Colonies.*** Dec., pp. 863-878
Raytheon Company 872, 876
Rebbes, Hasidic 289, 290 *see also* Satmar Rebbe
Record store, North America's largest: Toronto, Canada 200
Red Cross: Dacca, Bangladesh: Famine relief 34, **34-35,** 36
Red Oak (mountain), Tenn.: Strip mining **252**
Red Sea:
Rainbow World Beneath the Red Sea. By David Doubilet. Sept., pp. 344-365
The Strangest Sea. By Eugenie Clark. Sept., pp. 338-343
Caves **339,** 343
Corals; coral reefs 338, 340, 341, 342, **343-345, 360-363**
Fish **339,** 341, 342, 343, **344-347, 350-359, 362-363,** cover ill.
Hot spots 338, 344; Temperatures 338
Life forms: Escaping 341; Source 341; Uniqueness of 338, 340, 341, **362**
Metals: Amounts of 338; Value of 338, 344
Name origin (probable) 338
Salinity 338
Sharks 342-343, **352-353**
Study of 338, 340, 344
Trench 338, 341
Water loss and replacement 338
Redding, Conn.: Mark Twain's home 299, 335, billiard room **334**
Reed, Esther 476
Refugees: Drought victims: Mali 167, 174, **178-179,** 181; Flood victims: Bangladesh **32,** 33, **34-38**
Reitzammer, Leonard **314**
Relief programs: Africa 13, 16, food shipment **12,** refugee camps 167, 174, **178-179,** 181; ***Bangladesh: The Nightmare of Famine.*** By Steve Raymer. July, pp. 33-39; U. S. senior citizens **28**
Religions and religious groups *see* Amana Colonies; Hasidic Jews; The Maya
Religious ceremonies and processions: South Korea **409, 416-417;** *see also* Hasidic Jews; The Maya
Reptiles: Cobras **149B;** Turtles 86, 87; *see also* Garter snake
Research *see* Agricultural research; Animals: Animal studies (listing); Energy
Research Reports 1890-1954 (compiled and edited by Paul H. Oehser): ***New Volume of Research Reports Available.*** Sept., p. 442
Research vessels: Woods Hole, Mass. 46
Respiratory diseases: Coal miners 237, 240, 255, 258
Revell, Viljo 211
Revelle, Roger 29
Rhee, Syngman 405
Rhode Island: ***Mountains, Seacoast, and a Living Legacy.*** July supplement
Rhode River, Md.: Whistling swan tracking station 140, 141, **144**
Riaz Ahmad Khan 646, 654, 655, 657, 661
Rice **18-21;** Research 13, 14, 20, 28-29; South Korean crop 394, 397, 415
Rikkah, Kuwait **512-513**
Riot police: South Korea **398-399,** 405, 415
Rissinger, Robert 240

River trips *see* Rafts; Raft trips
Rivers *see* Mississippi; Niger; Yukon
Riyadh, Saudi Arabia 494, 517, 518, 522; Hospital 518; University 518
Roalf, Marvin **870**
Robertson, Merle Greene 755, 760
Rockefeller Foundation 13, 14, 17, 29
Roman, Stephen **199**
Romandale (estate), near Toronto, Canada **199**
Romania: Maverick on a Tightrope. By William S. Ellis. Nov., pp. 688-713
Art 699, **708,** 709
Athletics **700,** 703
Capital *see* Bucharest
Economy 691, 692, 693, 698, 705
Employment 703, 705, 712
Ethnic groups 692, 712
Facts and figures 692
Farming 688, 692; Collective 701, 712
Flag **692**
Food and drink 688, 709, 712
Government 688, 698, 703; President 693
Gypsies 688
History 692, 694, 695, 697, 698-699, 710
Hydroelectrical power 709
Income 692, 693
Industry 691, 703; Steelworks **690-691**
International relations 688, 691, 692, 693, 705
Languages 692, 698
Map 693
Medicine 703, **703,** 704-705, 712
Oil 698-699, 703; Refinery **711**
Population 692, 693
Press 693
Recreation **702,** 703-704, **712-713**
Religion 699, 709
Resorts 709-710
Tourism 697, 699, 703, 709-710
Wildlife 709, 710
Romanian Orthodox Church 699, 709; Monastery frescoes **708**
Romans: Romania 692, 698, 703
Rome, Italy: World Food Conference (1974) 31
Romney, Steven V. 570, 571, 574
Room-and-pillar mining: Coal mines 242, 244, diagram **243**
Rose, Arthur 550, 552, 555
Rose, George **676**
Rosenstein, Howard 341, 342
Rosenwald, Lessing J.: Donations to Library of Congress **672-673,** 674, 677, **685**
Rosh Hashanah (Jewish New Year): Hasidim 279, service 284
Rotor engines *see* Wind turbines
Rotter, Milo **875**
Royal Alexandra Theatre, Toronto, Canada **204-205,** 211
Royal Ontario Museum, Toronto, Canada 200, 215
Royal Society: Benjamin Franklin 105, 107
Royal Society of Arts: Franklin Medal 108
Ruby, Alaska: Fishing camp near **851,** 851-852; Gold mining 843, 846
Rugmaking: Hunza 657
Ruhr Valley, West Germany: Strip mining 244
Russian Mission, Alaska 836, 856
Russian Orthodox Christmas festival: Alaska 853, **858-859,** 859
Ruz Lhuillier, Alberto 755, 760
Ryder, Bob 47, 53
Rye **19;** Triticale 19, 28
Ryono, Byron 860

S

Sabbath: Hasidic Jews 277, 279, 294
Sacrifices: Maya 739, 764, 766, human 735, 738, 750, 765, 811
Sahel (sub-Sahara savanna), Africa **154-155, 170-171;** Drought 5, 16, 177, 178, map 5, recovery from 16-17; Rotational grazing 16-17
Said bin Taimur, Sultan (Oman) 515
Saif, Mohammed Mijrin **527**
Sailboats: Sloops **48-49;** *see also Ice Bird*
Sailing ships: ***Christopher Columbus and the New World He Found.*** By John Scofield. Nov., pp. 584-625
The Sailor Who Gave Us the New World: Christopher Columbus. By John Scofield. Nov., pp. 595-625
St. Bride's (church), London **106**
St. Croix (island), V. I.: Spanish-Indian skirmish (1493) 609
St. Lawrence Market, Toronto, Canada 212, 213
St. Lawrence Seaway, Canada-U. S. 190
St. Louis, Mo.: Gateway Arch **307**
St. Mary's Church, San Francisco, Calif. **629**
St. Petersburg, Fla.: Senior citizens **28**
Sakanee, Elizabeth 215
Salalah, Oman 515, 516
Salama, Sheikha 498
Salibia Indian Reservation, Dominica (island) 609
Saloon: Silver City, Nev. **327**
Salt: Hasidic ritualism 290
"salt-box" house: Cape Cod, Mass. **52-53**
Salt marketing: Mali 162, **163-165,** 169
Salter, Robert B. 212, 215
Salvage, underwater: ***The Treasure of Porto Santo.*** By Robert Sténuit. Aug., pp. 260-275
Diving team 260, 265, 267, 269, 272, 273
Equipment **264-265,** 267, **268,** 272, 273
Salvage permits: Dutch and Portuguese Governments 265, 266
Salvors, 18th-century 260, 262, **262,** 265, 266-267, 269; Equipment **262, 263**
Shipwreck site **264;** Map discovery **262,** 265-266; Search for 261-262, 265
Theft of treasure 273
Treasure recovered: Artifacts 269, 272, **274-275;** Cannon **260-261, 265,** 269, 273; Silver 260, 265, 269, 272-273, coins **261, 270-271,** ingots **260-261, 268-269**
Value of cargo 260, 262, 266-267; Historical importance 262, 265, 271, 274
Sampson, Deborah **485,** 486
Samsung Electronics Company, Suwon, South Korea **406-407**
San Francisco, Calif.: ***Chinatown, the Gilded Ghetto.*** By William Albert Allard. Nov., pp. 627-643; Newspaper 319, 329; Mark Twain 317, 319, 329; Writers 317, 319
San Salvador (island), Bahamas **594;** Columbus's landing 595-596, monuments marking 596; Inhabitants (1492) 595
Sand dunes: Cape Cod, Mass. 40, **44-45,** 58, 65
Sanders, Colonel, cardboard: Abu Dhabi **496**
Sandwich, Mass. 45-46, 58
Sandwich glass 45
Santa Maria (island), Azores: Columbus, detainment of 600
Santa María (Columbus's ship) 596, 597; Wrecked 598, site 611, timbers used in building new settlement 598
Santa María de Guadalupe, shrine of, Spain 600, 601
Santángel, Luis de 597
Santo Domingo, Dominican Republic: History 611, 613, 614, 616
Santos, Susano 738, 739
Săpînţa, Romania: Cemetery 699, 701
Saramet, Nicolae 710, 712
Saratoga, Battle of 114, 116
Sarcophagi, Maya: Lids 760, **761,** 762
Satellites, U.S.: Crop surveying 29
Satmar Hasidim *see* Hasidic Jews
Satmar Rebbe (Yoel Teitelbaum) 279, 284-285, **286,** 289
Sattrup, Peter **385**
Saudi Arabia: ***The Arab World, Inc.*** By John J. Putman. Oct., pp. 494-533
Capital *see* Riyadh
Construction 518, 519, 522
Education 518, 519, 529; Private school **529**

Five-year plans 514, 518-519, 522
Foreigners 522, 529, **529**
Industry 519
Investments 518, 519, 526
Islam 494, 518, **533**
King: Former 494, **517**, 518, 519; Present 517
Medical care 518, 519
Monetary reserves 518
Moral values 518, 529
OPEC member 494, 500
Oil: Prices (1974) 518; Reserves 494, 516; Revenue (1974) 516, 518, 519
Women, seclusion of 518, 529
Saudi Arabian Monetary Agency 518
Savino, Joseph M. 823
Schambeau, Crum 542
Schele, Linda 791
Schiff, Henry 864, 866, 871
Schiller, Everett 140, 141, 142
Schneider, Stephen H. 23
School Bulletin: Replaced by WORLD 149, 299
Schuerer, Harold and George 871
Schuessler, Carolyn **254**
Scofield, John: ***Christopher Columbus and the New World He Found.*** Nov., pp. 584-625
Scottish World Festival: Toronto, Canada 201
Scranton, Pa.: Park made from strip-mining area 241
Scribe: Hebrew lettering **288**
Sculpture *see* The Maya; Wood carving
Sea anemones 341, **346-347**
Sea cucumbers **342**
Sea harvesting 2, 400-401; Food supply, percentage of total 4; *see also* Fishing; Shrimping
Sea slug **348-349**
Sea urchin **347, 358, 359**
Seals: Cape Cod Bay, Mass. **50**; Hunting of: Greenland 373-374
Sedat, David **757**
Sedge **436**, 438
Seeger, Pete 675
Segovia, Victor 787
Selzer, Charles L. 864
Sen, S. R. 29
Sendégué, Mali 162
Seneca: Prophecy of 616
Sentinelese (Negrito tribe): Andaman Islands 66, **66-71**, 70, 72, 90-91
Seoul, South Korea: ***South Korea: What Next?*** By Peter T. White. Sept., pp. 394-427
Service, Robert: Quoted 832, 838, 840, 860
Setzer, Emma and Caroline **862**
Setzer, Minnie 869, 871, **877**
Seven Years' War: Peace negotiations 108
Severn River, Md.: Whistling swans **141**, 147
Seville, Spain: Cathedral library 616
Sewing: Garment industry 633, **634**; Hasidic girls **293**
Seymour, Ian 530-531, 532
Shah Shams ("Sun King") 646, 652
Shakhbut, Sheikh (Abu Dhabi) 498, 504
Shamokin, Pa.: Culm bank, burning 241
Shank family 212-213
Sharjah (city), Sharjah: Parade **506**
Sharks: Red Sea **352-353**, courtship frenzy 342-343, 352
Sharpe Health School, Washington, D. C.: Blind student **676**
Shaw, George Bernard 299
Sheep: Buseşti, Romania: Herding custom 688; Greenland 381, 392, transport of **378-379**
Shehab, Saleh **520**
Shell-BP: Nigeria 188
Shepherds: Community shepherds: Buseşti, Romania 688; Hunza **659, 661**, huts 647, **649**
Shield Jaguar (Maya ruler) 788, 789
Shimshal (village), Hunza 646, 653-655, **656**, 657; Summer trek 657, **661**
Shimshal River, and valley, Hunza 646, 647, 653-654, **658-659**, 661
Shinakis (people) 654
Shipley, Elizabeth 23
Shipley, Jonathan: Home **110**
Shipping: Food transport **6-7, 12**; Mobile, Ala. **558-559**
Shipwrecks: Cape Cod, Mass. 47, **62-63**; *Santa María* 598, 611; *see also Slot ter Hooge*
Shipyards: New Orleans, La. **320-321**; Ulsan, South Korea 400, **406**
Shook, Edwin 732-733
Shoomin, Lisa **212**
Shoup, Carrie 863
Shoup, Don 863, 871
Shrimp: Pothole: Clam shrimp 578, **578-579**, fairy shrimp **570-571**, 571, 578, tadpole shrimp **573**, 578; Red Sea **348, 350**
Shrimping: Alabama 542, **545**; Greenland 381, **388**
Shyok River, Kashmir 666, **666, 667**, 668
Sibiu, Romania **704-705**
Sierra, Pedro Arturo 768
Signy (island), South Orkneys: British base 220, 227, 229, 230
"silent majority": Origin of 681
Silla Dynasty (Korea) 394, 419; Burial mound 394, **418, 419**
Silver: ***The Treasure of Porto Santo.*** By Robert Sténuit. Aug., pp. 260-275
Silver City, Nev.: Saloon **327**
Simchas Torah 285
Simcoe, John G. 206
Simmons, Eligha, family **567**
Sinclair, Gordon 199
Singh, Bakhtawar 71, **73**, 75, 76
Singh, Har Mander 90
Singh, Raghubir: ***The Last Andaman Islanders.*** July, pp. 66-91
Single-cell protein (SCP) 2
Sinkiang (Chinese Turkistan), China 661
Sinks *see* Limestone sinks
Sisson, Robert **573**
Sisson, Robert F. **572**; photographer: ***Miracle of the Potholes.*** Oct., pp. 570-579
Skardu, Baltistan 665
Skiing, ice: Bering Sea **861**; Yukon River 831, 853, 856, 859-860
Sladen, Hugh **144**
Sladen, William J. L. **136, 137, 144**; ***Tireless Voyager, The Whistling Swan.*** July, pp. 134-147
Slash-and-burn agriculture: Mexico 735, **745**, 795
Slaughterers: Hasidic Jews **290**, 292
Slavery: Spanish colonies 609, 610, 621; United States 687, Alabama 539, 560, opponents of 476, 477, 489, 492
Sledges, dog: Greenland 367, **369**, 373, 374, 378, 392
Slot ter Hooge (Dutch East Indiaman): ***The Treasure of Porto Santo.*** By Robert Sténuit. Aug., pp. 260-275
Smith, Larry and Jackie 856
Smith, Maureen 209
Smith, Samuel S. 484
Smith, Tom **95**
Smithsonian Institution, Washington, D. C.: Museum of History and Technology: Print shop, demonstration 95-97, press **99**
Snakes: Cobras **149B**; *see also* Garter snake
Sniderman, Sam and Eleanor 200, 211
Sobky, Zeinab El 21-22
Sodium leaching: Farmlands 249, 253
Sololá, Guatemala: Market **752-753**
Songhai Empire 174
Songhais (people): Mali 171, 174, 177
Songni, Mount, South Korea: Buddhist temple complex **402-403**, 427
"sons of liberty": Origin of term 109
Sookmyung Women's University, South Korea 405
Sorghum 16, **18**; Famine-relief shipment **12**; Mali **152-153**
Sorko (tribe): Hippopotamus hunt **172-173**, 177, 181
South Amana (village), Amana Colonies, Iowa **864-865**
South America: Columbus's landing 612; Land, unarable 24, study of 28
South Atlantic: Hurricane **228-229**, 232-233
South Bay, Little Andaman Island: Onge camp **76-77, 82-83**, 85, 87

South Carolina: American Revolution: Women patriots 489, 492; ***Piedmont and Plain of Romantic Charm.*** Oct. supplement
South Cholla (province), South Korea 415
South Korea: What Next? By Peter T. White. Sept., pp. 394-427
Arts, ancient 394; Goldwork 394, **419**
Burial customs 417; Ancient 394, **418, 419;** Funeral procession **416-417**
Capital *see* Seoul
Character of people 408-409, 415
Colleges and universities 401, 405, 408, 413, 427
Demonstrations **398-399,** 405, 427
Economy 397, 400, 420, 427; Foreign trade 397, 400, 406, 411; Recession 400, 420, 427
Facts and figures 400
Farming 394, 397, 415, 420, **422-423;** Crops 394, 397, 415, 422, 423
Festivals; celebrations 394, 395, **409, 414, 426**
Fishing, commercial 401
Flag **400**
Government: Constitution (1972) 399, 405; Economic Planning Board 420, 427; Ministers 397, 405; National Assembly 405, 427; President **398,** 405, 415, 424, 427, assassination attempt on 401
History 394-395, 399, 400, 405, 409, 413, 414, 419, 420, 427
Industry 397, 400, 405, **406-407,** 411
Intelligence agency 405, 408
Labor force 397, 400-401, **404, 406-407,** 420, 427; Wages 406, 420
Language 408
Map 400
National dishes 401, 409, **412**
National Museum 401
North Korea, continuing conflict with 394, 396, 401, 414, 424, 427
Oppression of people 399, 405, 427
Population 395, 400; Density 395
Religion: Buddhism 408, 414, 427, Popchu temple **402-403,** 427; Christianity 399, 405, 408, 413; Confucianism 408, ceremony **409;** Taoism 427
Riot police **398-399,** 405, 415
Tourism 420, **420-421**
United States aid to 394, 395, 409, 413-414, 424, **424-425**
Women 417, 420, 423; Army Corps **426**
Southeast (region), U. S.: ***Piedmont and Plain of Romantic Charm.*** Oct. supplement; *see also* Alabama
Soybeans 9, 13, **18-19;** Nitrogen-fixing 29
Spain: ***Christopher Columbus and the New World He Found.*** By John Scofield. Nov., pp. 584-625; Conquest of Maya 729, 732, 738, 741, 750, 764-766, 770
Spakowski, Stan 715
Spas: Romania **702,** 703-704, **712-713**
Spier, Peter, artist: ***A Traveler's Tale of Ancient Tikal.*** Dec., pp. 799-811
Sponges, tube: Red Sea **350, 351**
Sports: Bowling, lawn (boccie) **196;** Discus thrower: Romania **700;** Golf: South Korea **421;** Ice hockey 213; Skating **210,** 213
"Sports City," Abu Dhabi 504; Model **524**
Sprague (stern-wheel towboat) **318-319**
Square, Herbert, family 560, **561**
Squirrel **110**
Staermose, Christian 380
Stage, Jim 147
Staheli, Lee 147
Stamp Act 108, 109; Repeal 110
Stanfield, James L., photographer: ***Mark Twain: Mirror of America.*** Sept., pp. 300-337
Starbird, Ethel A.: ***Toronto: Canada's Dowager Learns to Swing.*** Aug., pp. 190-215
Start the World, I Want to Get On! (WORLD magazine announcement). July, pp. 148-150
Static electricity: Effects **214;** Benjamin Franklin's experiments 102; Generator **105**
Steamboat service, ending of: Mississippi River 306, 309, 311, 315, stern-wheelers, retired **318-319;** Yukon River 840, 841, 844, stern-wheelers, retired **845**
Steelworks: Birmingham, Ala. **554-555,** 555; Romania **690-691**
Stein, Yvonne 209
Stelae, Maya 735, 746, **757, 759, 768-769,** 773, 783, 787, 788, 789, 791, **791,** 792, 795; Construction **802**
Sténuit, Robert: ***The Treasure of Porto Santo.*** Aug., pp. 260-275
Stephen the Great (Moldavian ruler) 699
Stephens, John L. 772
Stevenson, Margaret 105, 107
Stewart, Kenneth W. 717
Stewart River (town), Canada 841
Stoker, Bram 695, 697, 707
Stokes, Allen 428
Stone ax **593**
Stony Brook, Mass.: Alewives 46
Storms: Antarctic Regions 226; 229, 230; Atlantic Ocean **584-585;** Disko Bay, Greenland **388-389;** South Atlantic **228-229,** 232-233
Strait Island, Andaman Islands *see* Great Andamanese
The Strangest Sea (Red Sea). By Eugenie Clark. Sept., pp. 338-343
Strickler, John F., Jr. 824
Strip mining: ***Will Coal Be Tomorrow's "Black Gold"?*** By Gordon Young. Aug., pp. 234-259
Acid and mineral leaching 241, 249, 253
Anthracite 240
Bituminous 241
Environmental impact 241, 249, **252,** 253
Legislation concerning 241, 259
Machinery **250-251**
Reclamation 241, 244, 248, 253
Unreclaimed land 241, 248, **252**
Stuart, George E.: ***The Maya: Riddle of the Glyphs.*** Dec., pp. 768-791
Stucco: Maya 755, **786-787,** 802
Sub-bituminous coal 235, 248; Deposits (map) 244
Substitute natural gas (SNG) 249; Production plant **249**
Subuk, South Korea 415
Suez Canal, Egypt 338, 341
Sugar beets: Calorie yield 24-25; Israeli farm **24-25**
Sugarcane field: Taiwan **20-21**
Sukchong, King (Korea) 427
sukkahs ("booths"): Hasidic Jews **296;** Interior **297**
Sukkertoppen, Greenland **382-383**
Sulfur: Coal pollutant 246, 248
Sulfuric acid: Coal smoke 248; Strip mines leach 241
Super Speed Turbine (SST) **822,** 824
Superman comics: Library of Congress **684**
Susskind, Walter 211
Sutton, Nina 45
Suwon, South Korea: Electronics company **406-407**
Swaminathan, M. S. 15
Swans *see* Whistling swan
Sweany, Jimmy 313, 314
Sweatshops, garment-factory: Chinatown, San Francisco, Calif. 633, **634,** wages 633, 634
Sweeney, Thomas E. 824
Sweet potato **18-19;** Field: South Korea **422-423;** Research 26
Symbiosis: Red Sea life 347, 350
Symonds, Norman 209-210
Szabo, André 169

T

Table Bay, Cape Town, South Africa **233**
Tablet of the Sun: Maya **781-783**
Tadpoles, desert pothole: Frog **576;** Shrimp **573**
Taegu, South Korea 397, 408
Taerlinck, Baartel 261-262
Taiwan: Agricultural success 20, 26, 31, adviser to developing nations **20**

XUM

Talking books **676,** 681
Talmud, study of 282, 285, 292, 294
Tămăşescu, Virgil 703
Tamyang (county), South Korea 415
Tancah (Maya ruin), Mexico: Paintings 738, **741, 787**
Tanjung Puting Reserve, Borneo: ***Orangutans, Indonesia's "People of the Forest."*** By Biruté Galdikas-Brindamour. Oct., pp. 444-473
Tankard, silver: Engravings **262,** 265, 266, 267
Tankers: Grain-carrying **6-7;** Supertanker construction: South Korea 400, **406**
Teatrul Satiric Muzical: Bucharest, Romania **701**
Technology: ***Can We Harness the Wind?*** By Roger Hamilton. Dec., pp. 812-829
Teitelbaum, Yoel *see* Satmar Rebbe
Telemetry *see* Radiotelemetry
Telephone: Bell's first sketch **679;** Mark Twain's opinion of 329
Television: Arab nations 520
Television and Educational Films, NGS: Bicentennial film series 493; Public Broadcasting Service series 299, 583
Temples, Maya *see* Pyramids
Tennessee: Coal bed **245;** ***Piedmont and Plain of Romantic Charm.*** Oct. supplement; Strip mining 241, **252**
Tennessee Valley Authority: Kentucky 241, 244
Tent, goat-hair **510-511**
Tepes, Vlad 694-695, 697
Tetro, Robert C. 4-5, 9, 31
Texas: Drought (1974) 7
Textiles: Hunza **656,** 657; Maya 807, 808
Thailand: Green Revolution 20
Thatched huts: Onges **76-77,** 81, 87
Theodolite **202**
Therkildsen, Jens 373, 374
Therkildsen, Johannes 373, 374
Thomas, Jane 492
Thomas, Ronald L. 821
Thompson, Edward H. 750
Thompson, Sir Eric 738, 762, 772, 789, 790, 791, 801
Threadgill, Thomas 562
Thule (settlement), Greenland 390, 392
Thule Air Base, Greenland 392
Tiger, mounted **502**
Tikal (Maya ruin), Guatemala 732, 733, 738, 755, 788; ***The Maya: Resurrecting the Grandeur of Tikal.*** By William R. Coe. Dec., pp. 792-798; ***A Traveler's Tale of Ancient Tikal.*** By Alice J. Hall. Dec., pp. 799-811
Tikal National Park, Guatemala 795; Archeologist **787**
Timbuktu, Mali 167, **176, 177;** Garden plots **158-159**
Tireless Voyager, The Whistling Swan. By William J. L. Sladen. July, pp. 134-147
Tobacco: Dominican Republic **599;** Europeans' first meeting with 597, 599; Indian smoking (1558 drawing) **599;** Mali 158, 166
Toltecs (people) 750, 755, 763
Tom Sawyer (fictional character) 300, 303, 304, 323, 326
Tomatoes: Abu Dhabi **527**
Tombalbaye, Ngarta: Assassination of 16
Tombs, Maya 733, 794; Vase paintings **722-776;** *see also* Pyramids
Tong Myung Timber Co.: Pusan, South Korea 400
Torah 284, 285, 288, 294, 298
Tories: American Revolution 112, 122, 478, 479, 480, 488, **491,** 492
Toronto, Canada: ***Canada's Dowager Learns to Swing.*** By Ethel A. Starbird. Aug., pp. 190-215
  Aerial views **192-193, 202-203, 210-211**
  Architecture: Edwardian **191, 194-195, 204-205, 210-211,** 211; Ultramodern 190, **192-193, 202, 203, 210**
  Arts 204, 209-210, 211, 213, 215
  City Hall **210;** Old City Hall **211**
  Crime, little 201, 204, 215
  "Entertainment" district 199-200
  Entertainment industry 200, 204, 213
  Ethnic groups 196, 199, 206, 212; Chinese 205-206; Irish 215; Italians 196, **196, 198,** 199; West Indians **197**
  Expatriates 200
  Government 190, 201, 205, 206, 209
  Growth question 204-205, 209
  History 192, 206, 212; Founding 201, 206
  Housing 201
  Immigration 190, 196; Laws 196
  Industry 200
  Languages 196, 199
  Literati 210
  Marina **193**
  Markets **207,** 212-213
  Medical facilities **212,** 213, 215
  Merchandising 200, 210-211
  Museums 200
  Music and musicians **198,** 200, 204, 213
  Name origin 206, 211
  Neighborhood concept 196, 198, 204, 205, 209, 215
  Notables **208,** 210, 213
  Population 190, 192, 196
  Port 190, 206
  Public transit 200-201
  Recreational facilities 190, **192-193, 198,** 206, 209, **210**
  Restored area **191, 194-195, 204-205,** 211
  Sports: Boccie **196;** Ice hockey 213; Skating **210,** 213
  Unemployment 196, 200
  University 200
Toronto International Horse Show 556
Toronto Maple Leafs (hockey team) 213
Touring; tourists: Mark Twain's satire on 321, 335; Virginia City, Nev. 316, 325
Townshend, Charles 109
Toy, Tommy **636**
Trade Day: Collinsville, Ala. 564, 569
Train, Russell E. 140, 142
Trans-Alaska pipeline: Bridge supporting: Yukon River crossing 848
Transamerica building, San Francisco, Calif. **628**
Transmitters, miniature 134, 137, 140, 141, 142, **145**
Transplants: Embryos, livestock 2, 22
Transylvania (region), Romania 694, 697
Traoré, Moussa 162
A Traveler's Tale of Ancient Tikal. By Alice J. Hall. Dec., pp. 799-811
Treasure, sunken: ***The Treasure of Porto Santo.*** By Robert Sténuit. Aug., pp. 260-275
Tree harvesting: Alabama **542-543**
Trees: Betel palm **458-459;** Fossilized **245;** Maple leaves **394-395;** Pines, southern **542-543;** Raphia palm 186, 189
Trek to Lofty Hunza—and Beyond. By Sabrina and Roland Michaud. Nov. pp. 644-669
Trinidad (island), West Indies: Columbus's landing 612
Triticale (wheat-rye cross) 19, 28
Trucial States *see* United Arab Emirates
Trumbull, John: Painting by, July cover
Tryck, Keith **831, 834, 835, 846, 854, 855, 859;** ***Rafting Down the Yukon.*** Dec., pp. 830-861
Tryck, Oscar and Charlie 834, 843, 846, 852
Tsetse fly: Africa, economic factor in 24
Tuareg (people): Mali 174, drought hardships of 16, 174, 177, 181, 185
Tuberculosis: Chinatown, San Francisco, Calif. 629, 634; Greenland 380, 391
Tuileries, Paris 118, 120
Tulcea, Romania 709, **710-711**
Tulum (Maya ruin), Mexico 732, **740-741,** 755
Tundra, Alaskan: Whistling swan breeding grounds 135, **136, 137,** 147
Turbines *see* Wind turbines
Turner, B. L., II 733

Tuscaloosa, Ala.: Baptism **568;** Coal mine near **543;** Paper company 556, **556, 557**
Tuskegee Institute, Tuskegee, Ala. 562, 569
Twain, Mark: Color photo of, never-before published 299, **301;** ***Mark Twain: Mirror of America.*** By Noel Grove. Sept., pp. 300-337
Birth 304
Character 300, 311, 313, 315, 326, 330, 335
Children 322, 326, 329, **331,** 335
Confederate guerrilla 300, 315
Death 304, 336
Homes: Hartford, Conn. 304, 322, 329, **330-333;** Redding, Conn. 335
Inventions 328, 333; Diagram **333**
Investment schemes 328, 333
Lecturer 330, 333
Marriage 321-322
Pen name, origin of 303
Philosophy 311, 329-330
Photographs **301, 304, 308, 331, 333, 334, 337**
Printer 300, 304
Prospector 300, 315
Religion, views on 303, 329, 330
Reporter 315, 317, 319, 321, 325
River pilot 300, 304, 306, 308, 311; Notebook **308**
Travel, writings on 321, 335
Wife 321-322, 323, 329, **331,** 335
Works 303, 306, 309, 316, 319, 321, 323, 326, 328, 329, 330; Listed 335; Quoted 304, 328, 329
Youth 304
Two-Armed Sky (Maya ruler) 757
Two-headed snake **722**
Twyford, Hampshire, England **110**

U

Uijongbu, South Korea: Military base 413
Ulsan, South Korea: Shipyard 400, **406**
Underwater preserve: ***Rainbow World Beneath the Red Sea.*** By David Doubilet. Sept., pp. 344-365; ***The Strangest Sea*** (Red Sea). By Eugenie Clark. Sept., pp. 338-343
Union Fire Company (1700's), Philadelphia, Pa. 100
Union of Soviet Socialist Republics: Coal deposits 244; Environmental agreement with U. S. 142; Farm productivity 13, 18; Grain deal with U. S. 6, 9; Krill harvesting 2
Union Pacific Railroad: Windmill (1870's) **820**
United Airlines: Accident (1962) 138
United Arab Emirates: ***The Arab World, Inc.*** By John J. Putman. Oct., pp. 494-533
Ambassador to Great Britain and France **514,** 532
Capital *see* Abu Dhabi (city)
Defense forces 504, 507; Parade **506**
History 507; Founding 504
Ministers **502, 503,** 508
OPEC member 500
President 502, 508
Vice President 502, **504,** 509
see also Abu Dhabi (sheikhdom); Dubai, *outlined*
United Mine Workers of America 258-259; History 256-257; Members **258-259**
United Nations: Sahel famine relief 16; South Korea, forces in 414, 424; UNICEF nurse: India **31;** World Food Conference (1974): Rome 31
United States: Agricultural efficiency 6, 7, 13, 18, 19, 29; Antarctic base (Palmer Station) 216, **218,** 219, **219;** Arab investments in 526-527; Arab oil embargo (1973) 501; ***Can We Harness the Wind?*** By Roger Hamilton. Dec., pp. 812-829; Drought (1974) 7, 9; Environmental agreement with U.S.S.R. 142; Famine relief, overseas **12, 13,** 16, 33, 36, 37; Farmland shrinkage 23-24; Food consumption 4; Food supply, world: Contribution to 6, 7, 13, 18, 19; ***For Our Bicentennial . . . Relive the American Adventure*** (book announcement). Oct., pp. 580-582; Grain deal with U.S.S.R. 6, 9; Grain reserves, selling of (1972) 6-7, 9; History *see* American Revolution; Malnutrition of the poor 22, 28; ***Mark Twain: Mirror of America.*** By Noel Grove. Sept., pp. 300-337; ***Mountains, Seacoast, and a Living Legacy*** (New England). July supplement; Petroleum and food production 24-25; ***Piedmont and Plain of Romantic Charm*** (Southeast). Oct. supplement; Saudi Arabia, aid to 519, 522; South Korea: Aid to 394, 395, 409, 413-414, 424, **424-425,** trade with 400, 411; War of 1812 206; ***Will Coal Be Tomorrow's "Black Gold"?*** By Gordon Young. Aug., pp. 234-259; *see also* Alabama; Library of Congress
U. S. Air Force: Bird-plane collisions, cost of 138
U. S. Army Corps of Engineers: Saudi Arabia 519, 522
U. S. Capitol, Washington, D. C. 674, **687**
U. S. Congress: Strip-mining legislation 241
U. S. Marine Corps: Korean landing (1871) 409
U. S. Military Academy, West Point, N.Y.: Woman patriot's grave 483, 484
U. S. Pipe and Foundry Company: Alabama: Coal mine **543**
U. S. Postal Service: Bicentennial stamp 489
University of Alabama: Football team's partisans **548-549;** Hospital 563
University of Bucharest, Romania **695,** 709
University of Kentucky: Agronomy 241
University of Manitoba: Research *see* Garter snake
University of Pennsylvania: Founding 98; Statue of Benjamin Franklin **94**
University of St. Andrews, Scotland **113;** Benjamin Franklin 112
University of Toronto, Canada: Classical record library 200; Research on elderly 209
University of Utah: Research *see* Potholes, desert
Uranium: Canada 190, 199, mine, world's largest 199
Urda Valley, Romania **689**
Utah *see* Potholes, desert
Utah State University: Research *see* Brown bear
Uuc, Heraclio 738-739
Uuc Chi, Santos Teodoro and Feliciana 742
Uxmal (Maya ruin), Mexico 732, **762-763,** 763, 764

V

Vacherie, La.: Plantation near **316-317**
Valley Forge, Pa.: Continental Army 480, 482
Valley View, Pa.: Coal mine 240
Vasectomies: India 17, 21
Vases: Maya 791, paintings **772-776**
Vegetables **18-19,** 22; Research 26, 28
Venezuela: Columbus's landing 612
Ventris, Michael 789
Venus (planet): Maya interest in 729, 741, 766, 772
Vergennes, Charles Gravier, Count de 112, 118
Vermont: ***Mountains, Seacoast, and a Living Legacy.*** July supplement; Wind-generated electricity (1940's) 823, 828, turbine 823, 825, **828**
Vespucci, Amerigo 616, 624
Vikings: New World settlements 611
Virginia: American Revolution 482, **484-485,** 486, western Virginia: Women patriots **487,** 488-489

XUM

Virginia City, Nev. **324-325;** History 315-316; Mining 315-316, 325; Tourists 316, 325; Mark Twain 315, 325
Voroneţ (monastery), Romania 699
Voyages: ***Christopher Columbus and the New World He Found.*** By John Scofield. Nov., pp. 584-625; Solo voyage: **Ice Bird *Ends Her Lonely Odyssey.*** By David Lewis. Aug., pp. 216-233

W

Walachia (region), Romania 694; Prince Vlad Tepes-Dracula legend 694-695, 697, 707
Wallace, George C. **540, 541**
Wallace, Jerry **830, 834, 840, 845-846, 849, 854**
War of 1812: Toronto, Canada 206
Ward, Barbara 17
Ward, Flora **209**
Warner, Jack W. 556, **556,** 557
Warren, Mercy Otis 479, **480**
Warri, Nigeria **186,** 188-189
Washington, Booker T. 569
Washington, George 478-479, 480, **481,** 482, 484, 492, 674; Chair **122**
Washington, Martha: Wartime travels 479-480, **481,** 482, map 478, Valley Forge stay 480
Washington, D. C. *see* Library of Congress
Water: Desalinized: Middle East 525, 526; Food production, used in 24; "harvesting" rainwater 28; Shortages, worldwide 24, 26
Water towers: Kuwait **525**
Waterfall: Guadeloupe (island), West Indies **608,** 609
Waterfowl: Duck population decreasing: Alabama 545; *see also* Whistling swan
Waters, Peter 678
Watson, Bobby **836**
Wazirzadah Ali Murad **652,** 664
We Americans—*A New Geographic Book.* Oct., pp. 580-582
Weather patterns changing 1, 4, 5, 9, 16, 23
Weathervane, cod-shaped **40-41**
Weavers; weaving: Hunza 656, 657; Maya **806**
Wedderburn, Alexander 112
Wedding festivities: Hasidic Jews **287**
Well of Sacrifice, Chichén Itzá, Mexico 750
Wellfleet, Mass. **62-63**
Welling, Chip 142
West Frankfort, Ill.: Coal mine explosion (1951) 257
West Indies: ***Christopher Columbus and the New World He Found.*** By John Scofield. Nov., pp. 584-625
West Virginia: American Revolution: Women patriots **487,** 488-489; Coal-dust disease research 253, 258; Coal-mine safety research 258
Wetmore, Alexander 151, **151**
Whales: Blue whale: Tongue, weight of 149B; Hunting of: Greenland 368, 390, 392
Wheat 2, 7, 10, 17, **18,** 23, **23,** 29; Research 9, 13, 14, 23, 28; Triticale 19, 28
Wheatley, Phillis **489,** 492-493
Wheeling, W. Va.: American Revolution 486, 488-489
Whipstaff, improvised **226,** 232; Diagram 226
Whirligigs: Gehrke assortment **826-827**
Whistling swan, eastern *(Olor columbianus):* ***Tireless Voyager, The Whistling Swan.*** By William J. L. Sladen. July, pp. 134-147
Adaptability 139-140, 146
"adoption" of individual birds 147
Breeding grounds 135, **136,** 137, **137,** 143, 147; Map 139
Cry of 135, 137, 138, 147
Cygnets **136, 137,** 143, **143**
Ecological barometer, serves as 139, 146
Fidelity question 143
Flightless period 135, 137
Food 139, 146
Hazards for 138, 144, 146, 147; Habitat disturbances 146-147
Markings: Adult 135
Migratory behavior study: Benefits derived from 138-139, 144; Funnel trap used in **140, 141;** Organizations and individuals supporting 135, 137, 140, 147; Questions resolved and unresolved 138, 142, 143
Molting 135, 137
Population 139, 146
Protected from hunters 143, 146
Tracking of: Dye marking 135; Neckbanding 134, 135, **136,** 140, **140,** 141, **141,** 142-143, **145,** 146; Radiotelemetry 134, 137, 140-142, 146; Electronic equipment 140, **144, 145;** Tracking vehicles 135, 140, 141, 142, **144**
Weight and size 135, 137, 140
Wildlife refuges important to 146
Wintering grounds 137, **138-139,** 142, 143, **143,** 146, **146-147,** 147; Map 139
see also Migration, animal: *Outline*
Whistling swan, western 137, 147; Migration route (map) 139
White, Al 46
White, Bertrand 313, 314
White, Peter T.: ***South Korea: What Next?*** Sept., pp. 394-427
White, Roger 188-189
White House, Washington, D. C.: Name-origin legend 206
Whitehorse, Canada 836, 840, **844-845**
Whitman, Walt 674
Whitney, Jim 241
Widder, Eugene **538**
Wigs: Hasidic women 279, **295**
Wilcox County, Ala. 558, 562; Courthouse **546,** 562
Wildlife: Asia *see* Orangutan; North America *see* Brown bear; Garter snake; Whistling swan
Wildlife refuges: ***Tireless Voyager, The Whistling Swan.*** By William J. L. Sladen. July, pp. 134-147; *see also* McNeil River State Game Sanctuary, Alaska; Tanjung Puting Reserve, Borneo
Will Coal Be Tomorrow's "Black Gold"? By Gordon Young. Aug., pp. 234-259
Williams, A. Cecil **328**
Williams, Chester **547**
Williams, Lylburn **310**
Williamsburg (district), Brooklyn, N.Y.: ***The Pious Ones*** (Hasidic Jews). By Harvey Arden. Aug., pp. 276-298
Winage, "Black Mike" **845**
Wind-power research: ***Can We Harness the Wind?*** By Roger Hamilton. Dec., pp. 812-829
Aesthetic considerations 825, 828
Environmental concerns 828
Federally-funded projects: Agencies participating 812, 821, 823, 824, 828; Budget 814; Number of 814
Fuel production 821, 824, 825
German research 824
Non-polluting considerations 812, 815, 828
Power-storage problem 821, 824, 825
Turbine design: Proposed **813, 816,** 825; Testing and development **817, 822,** 823, 824, **829;** Vertical-axis **816, 817**
Universities participating 814, 815, 822, 824-825
Wind-generated power: Economics of 815, 816, 818, 820-821, 822, 823, 824, 825; Future of 812, 815, 816, 821, 824-825
Wind-power computation 819, 825
Wind towers, offshore, proposed **813,** 825
Wind turbines: ***Can We Harness the Wind?*** By Roger Hamilton. Dec., pp. 812-829
Wind wheel, vertical-axis: 19th-century **821**
Windmills: ***Can We Harness the Wind?*** By Roger Hamilton. Dec., pp. 812-829
Winds, monsoon: Shifting 1, 5, 16
Wine making: Amana Colonies, Iowa 871, 874
Wing Sing & Co.: Toronto, Canada 206
Winheim, Charles 336

Winston County, Ala. 564
Winter solstice: Christmas celebration related to 727
Witch: Cape Cod legend 58, 63
Women of the Revolution: Patriots in Petticoats. By Lonnelle Aikman. Oct., pp. 475-493
Antislavery views 476, 477, 478, 492
Army camp wives 477, 480, 482-484
Battlefield service 475, 482-484, **483, 485,** 486, **487,** 489; Woman enlistee **485,** 486
Intelligence work 475, 476, 477, 478, 491, 492
Nurses **474-475,** 477, 482, 492
Sewing for troops 475, 476, 477, 478, 480
Tax-defying groups 476
Weapons, use of 476, **485,** 486, 488, **490-491**
Women's rights advocates **476,** 477, 478, 479, **480**
Writers 477, 479, **480, 489,** 492-493, **493**
Women's Army Corps: South Korea **426**
Women's rights: American Revolution 476, 477, 478, 479
Wong, Po 643
Wood carving: ***An Ozark Family Carves a Living and a Way of Life***. By Bruce Dale. July, pp. 124-133
Woods Hole Oceanographic Institution, Mass. 44, 46
Woodward, Iowa: Wind-generated power 815-816
Woolfitt, Adam, photographer: ***Christopher Columbus and the New World He Found***. Nov., pp. 584-625
The World: ***Can the World Feed Its People?*** By Thomas Y. Canby. July, pp. 2-31; Oil reserves: Diagram **500**
WORLD (National Geographic magazine for young readers) 299; ***Start the World, I Want to Get On!*** July, pp. 148-150
World Bank 23, 29; International agricultural research programs 26
World Council of Churches: Sahel drought relief 16
World Food Conference (1974): Rome, Italy 31
World War II: Germany: Coal 235, 253; Romania 698-699, 710
World Wildlife Fund: Orangutan, preservation of 458
Wortman, Sterling 13, 29, 31
Wouk, Herman **686**
Wrestling: Arm-wrestling **370-371;** Dog wrestling 401
Wright, E. R. 408
Wright, Wilbur: Telegram from **678**
Writing systems *see* Glyphs
Wyoming: Strip mining **250-251**

X

Xcobenhaltun, Mexico 738-739, 742-743
Xiu, Ah Zuytok Tutul 763-764
Xiu, José 763-764

Y

Yabgu Fatch Ali Khan, Rajah of Khapalu 666
Yablonski, Joseph A. 257
Yakielashek, Henry 720
Yaks **644,** 656, 657, **658,** 668
Yarmouth, Mass.: Clambake **61**
Yarmulkes (skullcaps) 279, 284
Yaxchilán (Maya ruin), Mexico 732, 788, 789; Lintels **771, 788,** cover ill.; Ruler **775;** Stela **768-769**
Yeast: Protein source 2
"yellow-power" movement: Chinatown, San Francisco, Calif. 630
Yemen, People's Democratic Republic of 507; Oman, relations with 516
Yi Sun-sin 420
Yide, Amadou 170
Yoelson, Martin 102, 104
Yongsan District, Seoul, South Korea: U. S. military base 413
York (1793 village), Upper Canada 206
Yorktown, Battle of 482, **484-485,** 486; Woman soldier **485,** 486
Yorkville, Toronto, Canada **194-195**
Young, Fong Chung 643
Young, Gordon: ***Will Coal Be Tomorrow's "Black Gold"?*** Aug., pp. 234-259
Young Women's Christian Association: Wheatley branches 493
Youpon (plantation), Camden, Ala. **551**
Yucatán Peninsula, Mexico: ***The Maya, Children of Time***. By Howard La Fay. Dec., pp. 729-767; ***The Maya: Riddle of the Glyphs***. By George E. Stuart. Dec., pp. 768-791
Yuen, Sam 641, 643
Yugoslavia: Electricity 709
Yugu, Baltistan **662-663**
Yukon Flats, Yukon River, Alaska 846, 848, **848-849;** Map 837
Yukon River, Canada-Alaska: ***Rafting Down the Yukon***. By Keith Tryck. Dec., pp. 830-861
Bridges 840; Oil pipeline 848; Railroad **840**
Canyon 831, **832-833,** 840
Communities, decline of 840, 841; Ghost towns 841
Eskimos 853, **856,** 859
Gold mining, present-day 843, 848, 851
Gold rush days 831, 832, 834, 836, 837, 843, 845, 848
History 836, 837, 841, 843 *see also* Gold rush days, *above*
Hydroelectric dams 832, 840; Abandoned project 837, 848
Indians 843, **850,** 851-852
Length 831, 836, 846, 860
Map 836-837
Salmon **850, 851,** 851-852
Ski trip down frozen river 831, 853, 856, 859-860, **861**
Steamboats, retired 840, 841, **844-845**
Wildlife 848, 851-852, 853, 856; Birds **842-843;** Fish **850-851**
Winter traveling on 853, 856, 859-860, **861**
Yukon Territory, Canada *see* Yukon River
Yun Kyong-ruel 395

Z

Zaan River region, Netherlands: Industry 812
Zac Kuk, Lady (Maya queen) 760
Zane, Betty **487,** 488-489
Zawawi, Qais 515, 516
Zayid, Sheikh (Abu Dhabi) 498, 504, 507, 508-509, 515; President of U.A.E. 502, 508
Zeeland Province, Netherlands: Coat of arms **261,** 269; Coins **261,** 269, 271
Zero population growth (ZPG) 17
Zimmerman, Ron 140, 141, 142

INDEXING STAFF

JOLENE M. BLOZIS *Chief*
MARTHA K. HIGHTOWER *Assistant Chief*
GEORGE I. BURNESTON
PHILIP G. GUTEKUNST
BARBARA L. KLEIN
ANNE K. McCAIN
BRIT A. PETERSON
VIRGINIA S. THOMPSON